ARCTIC DATA COMPILATION AND APPRAISAL
VOLUME 4
Northwest Passage:
Chemical Oceanography

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1983

**CANADIAN DATA REPORT OF
HYDROGRAPHY AND OCEAN SCIENCES
NO. 5**

Canada

Canadian Data Report Of Hydrography and Ocean Sciences

These reports provide a medium for the documentation and dissemination of data in a form directly useable by the scientific and engineering communities.

Generally, the reports will contain raw and/or analyzed data but will not contain interpretations of the data. Such compilations will commonly have been prepared in support of work related to the programs and interests of the Ocean Science and Surveys (OSS) sector of the Department of Fisheries and Oceans.

Data Reports are produced regionally but are numbered and indexed nationally. Requests for individual reports will be fulfilled by the issuing establishment listed on the front cover and title page. Out of stock reports will be supplied for a fee by commercial agents.

Regional and headquarters establishments of Ocean Science and Surveys ceased publication of their various report series as of December 1981. A complete listing of these publications and the last number issued under each title are published in the *Canadian Journal of Fisheries and Aquatic Sciences*, Volume 38: Index to Publications 1981. The current series began with Report Number 1 in January 1982.

Rapport statistique canadien sur l'hydrographie et les sciences océaniques

Ces rapports servent de véhicule pour la compilation et la diffusion des données sous une forme directement utilisable par les scientifiques et les techniciens.

En général, les rapports contiennent des données brutes ou analysées mais ne fournissent pas d'interprétations des données. Ces compilations sont préparées le plus souvent à l'appui de travaux reliés aux programmes et intérêts du service des Sciences et Levés océaniques (SLO) du ministère des Pêches et des Océans.

Les rapports statistiques sont produits à l'échelon régional mais sont numérotés et placés dans l'index à l'échelon national. Les demandes de rapports seront satisfaites par l'établissement auteur dont le nom figure sur la couverture et la page de titre. Les rapports épuisés seront fournis contre rétribution par des agents commerciaux.

Les établissements des Sciences et Levés océaniques dans les régions et à l'administration centrale ont cessé de publier leurs diverses séries de rapports depuis décembre 1981. Vous trouverez dans l'index des publications du volume 38 du *Journal canadien des sciences halieutiques et aquatiques*, la liste de ces publications ainsi que le dernier numéro paru dans chaque catégorie. La nouvelle série a commencé avec la publication du Rapport n° 1 en janvier 1982.

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PREFACE

These catalogues are produced by the Ocean Information Division at the Institute of Ocean Sciences. Joint government and industry contract projects have catalogued marine data sets their focus being primarily upon oceanography and fisheries. Data set quality appraisals are included to assist in establishing the usefulness of certain data for particular kinds of analyses and the confidence to be placed in interpretations. These appraisals will assist in setting priorities for incorporating the most useful data in the national Marine Environmental Data Service (MEDS) archives. Additional uses include research planning (especially for climatological studies), and the provision of the best available resume of marine data sources for environmental assessments.

The accelerating pace of Arctic offshore development activity has emphasized the need to review the sufficiency and suitability of available scientific information for design, regulatory and planning purposes. This review has been divided into three phases: (1) compilation and appraisal of all existing data sets; (2) analysis of the suitability of the historical data for contributing to questions of particular interest; and (3) analysis and interpretation of data and estimation of the scientific confidence in answering particular questions. This report on the chemical oceanographic data of the channels of the Northwest Passage is a contribution to the first phase.

Dr. Alan B. Cornford
Scientific Editor
Arctic Data Compilation
and Appraisal Series

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Cat. No. Fs 97-16/5 ISSN 0711-6721

The correct citation for this publication is:

D.J. Thomas, R.W. Macdonald, A.G. Francis, V. Wood and A.B. Cornford. Arctic Data Compilation and Appraisal. Volume 4. Northwest Passage: Chemical Oceanography.

Can. Data Rep. Hydrogr. Ocean Sci. 5: (Volume 4) 200 pp.

TABLE OF CONTENTS

	Page
PREFACE	ii
TABLE OF CONTENTS	iii
ABSTRACT	v
ACKNOWLEDGEMENTS	vi
SPECIAL CREDITS	vii
VOLUME ABSTRACT	1
1. **INTRODUCTION**	1
2. **STUDY AREA**	4
3. **CHEMICAL DATA PRESENTATION**	4
3.1 Types of data	4
3.2 Concentration units	9
4. **OUTLINE OF DATA INVENTORY ORGANIZATION**	9
4.1 Description of table headings	14
4.1.1 Table 1	14
4.1.2 Table 2	14
4.1.3 Table 3	15
4.2 Sample use of the inventory	16
5. **DATA RATING SYSTEM**	16
5.1 Data quality criteria	16
5.2 Definition of the rating system	23
5.3 Significance of the data rating value	25
5.4 Effect of positioning on the data quality	26

TABLE OF CONTENTS (continued)

		Page
5.5	Some important factors relating to the data appraisal process	27
5.5.1	Heavy metals	27
5.5.2	Nutrients	33
5.5.3	Dissolved oxygen	35
5.5.4	Hydrocarbons	35
5.5.5	Chlorinated hydrocarbons	37
6.	**REFERENCES**	38
7.	**DATA INVENTORY TABLE 1. DATA SET LISTING**	47
8.	**DATA INVENTORY TABLE 2. LISTING OF DATA BY PARAMETER**	75
9.	**DATA INVENTORY TABLE 3. LISTING OF MEASUREMENT LOCATIONS**	111
10.	**MAPS**	145
10.1	Geographical occurrence of chemical oceanographic data on a cumulative bi-monthly basis	145
10.2	Geographical occurrence of chemical oceanographic data on a yearly basis	155
11.	**INDICES**	191
11.1	Geographical	193
11.2	References by data set number	194

ABSTRACT

D.J. Thomas, R.W. Macdonald, A.G. Francis, V. Wood and A.B. Cornford. Arctic Data Compilation and Appraisal. Volume 4. Northwest Passage: Chemical Oceanography.

Can. Data Rep. Hydrogr. Ocean Sci. 5: (Volume 4) 200 pp.

This volume is one of a group of catalogues designed to compile and appraise marine data sets for the Canadian Arctic. For ease of reference, the group has been organized with its subject matter divided into three disciplines: physics, chemistry and biology. The Arctic has been arbitrarily divided into seven geographical areas to include, where possible, major oceanographic regions. The format has been structured to facilitate comparison between subjects and regions. With such a large undertaking it is not possible to provide all reports at once. Therefore catalogues which are presently available in the series are indicated on the inside back cover of each volume.

Data collection is a continuing process and further updates of the catalogues are planned. Readers are invited to submit corrections and additions by writing the issuing establishment. These corrections will be incorporated in on-line computerized data set listings; they will be continuously available upon request.

SOMMAIRE

D.J. Thomas, R.W. Macdonald, A.G. Francis, V. Wood and A.B. Cornford. Arctic Data Compilation and Appraisal. Volume 4. Northwest Passage: Chemical Oceanography.

Can. Data Rep. Hydrogr. Ocean Sci. 5: (Volume 4) 200 pp.

Le présent volume fait partie d'un groupe de catalogues destinés à compiler et à évaluer les séries de données marines sur l'Arctique canadien. Pour plus de commodité, la question traitée est structurée en trois grandes disciplines: physique, chimie et biologie. L'Arctique a été divisé arbitrairement en sept régions géographiques qui englobent autant que possible les grandes régions océanographiques. Les catalogues sont présentés de façon à faciliter la comparaison entre les sujets et les régions. Le domaine est si vaste qu'il est impossible de fournir tous les catalogues en une seule fois. Les catalogues de la série actuellement disponibles sont indiqués à la fin de chaque volume à l'intérieur de la couverture.

La collecte des données est un processus permanent et il est prévu de mettre à jour les catalogues par la suite. Les lecteurs sont invités à soumettre par écrit les corrections et les additions à l'établissement auteur. Ces corrections seront traitées en direct sur ordinateur et incorporées aux listes qui pourront être obtenus sur demande.

ACKNOWLEDGEMENTS

The authors wish to acknowledge contributions from many people who assisted with the preparation of this inventory compilation. Brian Smiley of the Institute of Ocean Sciences, Ocean Information Division contributed to format design and provided valuable comment and criticism throughout the project. Ms. T. Yu and Mr. B. Perry of Arctic Laboratories Limited provided dedicated technical support in organizing original data sources. Special thanks are extended to J. Gagnon of the Marine Environmental Data Service (MEDS) in Ottawa and H. Odum of the National Oceanographic Data Center (NODC) in Washington, D.C., U.S.A., for providing access to their data files. Information and assistance were received from Dr. B. Bornhold, Pacific Geoscience Centre, Sidney, B.C., Dr. A. Sekerak, LGL Limited and Dr. M. Dunbar, Marine Sciences Centre, McGill University. P. Rothwell performed the arduous task of preparing the manuscript.

SPECIAL CREDITS

L.S.C. Thomson - Technical editing

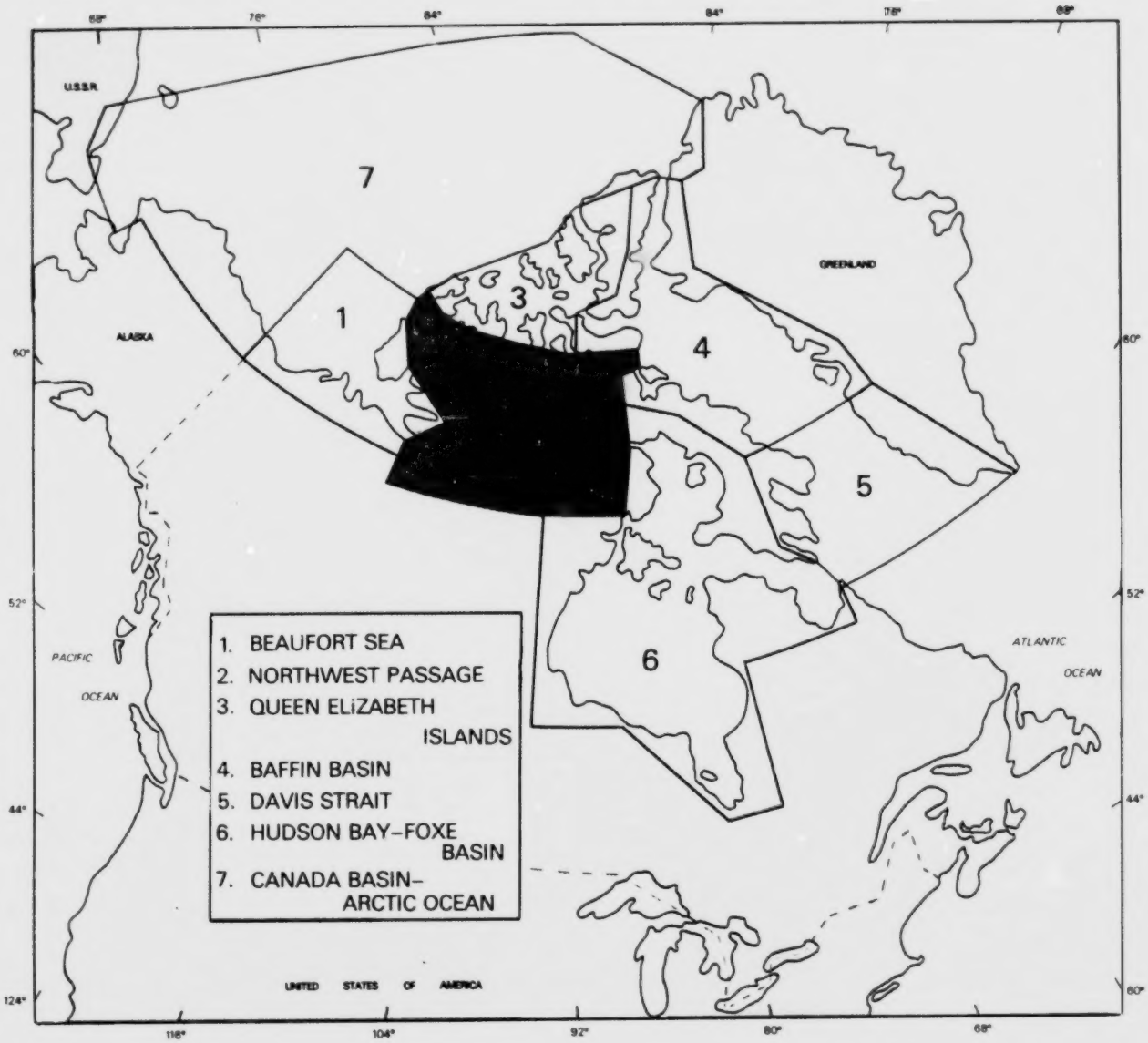
Funds for this work were provided by:

Department of Fisheries and Oceans (DFO);
Department of Indian Affairs and Northern Development (DIAND); and
Dome Petroleum Limited

ARCTIC DATA COMPILATION AND APPRAISAL

VOLUME 4

NORTHWEST PASSAGE: CHEMICAL OCEANOGRAPHY



The area (2) covered by this volume is shaded on the map above.

Volume 4: Northwest Passage: Chemical Oceanography

VOLUME ABSTRACT

This inventory contains a catalogue of chemical oceanographic data sets from the Northwest Passage. The inventory includes commonly- measured substances such as dissolved oxygen, major and minor elemental components, nutrients and less frequently measured substances such as trace elements, hydrocarbons and chlorinated hydrocarbons. Suspended particulate matter (although not a truly chemical quantity) is also included. Data sets are included for sea ice, sea water, sediments and biota. Times and locations of measurements are listed and displayed graphically on a yearly and cumulative bi-monthly basis. A geographical index and alphabetical references (by data set number) are also included.

Key Words: Northwest Passage, chemical oceanography, data sets, inventory, dissolved oxygen, nutrients, heavy metals, hydrocarbons, chlorinated hydrocarbons, suspended particulate material, sea ice, sediments, biota.

1. INTRODUCTION

This inventory comprises 75 data sets of chemical oceanographic data collected in the marine channels of the Northwest Passage during the period 1928 - 1981. The quantity and type of data are distributed irregularly over this time period with the bulk of the data collection occurring after 1970 as shown in Figure 1.1.

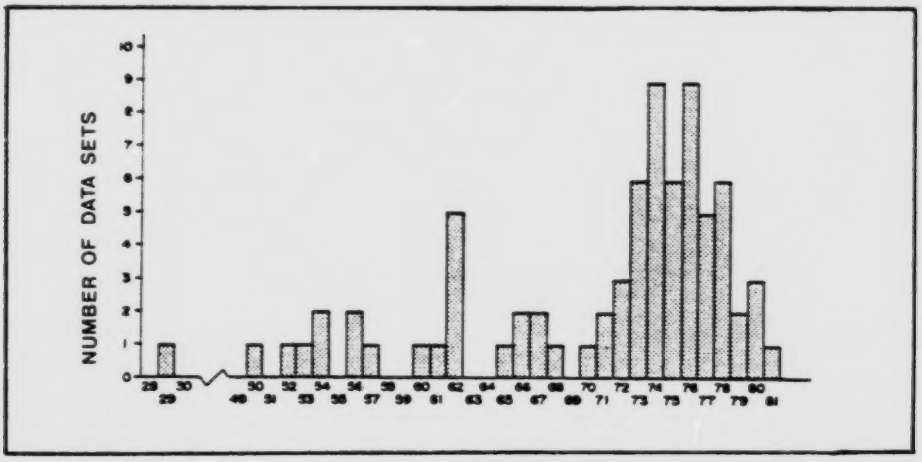


Figure 1.1 Yearly distribution of chemical oceanographic data sets for the Northwest Passage.

Most of the data reported in this inventory can be classified as baseline data and are statements of observed distributional patterns of the various chemical species. Before 1970, water column measurements such as dissolved oxygen and nutrients were virtually the only data obtained. After 1970, a wider range of data were obtained in response to a need for environmental data by government and industry interested in exploiting regional resources but usually on a very narrow geographical basis only, for example: (1) most of the data for heavy metals in sea water, sediments and biota apply to Strathcona Sound where extensive sampling programs were concerned with potential effects of a lead-zinc mining operation at Nanisivik and (2) most of the hydrocarbon data were collected in the Lancaster Sound area in anticipation of petroleum hydrocarbon resource development. The frequency of occurrence of selected chemical quantities is summarized for each sampling medium (sea water, ice, sediment and biota) in Table 1.1.

There is no evidence in the published literature for any systematic interpretation of the chemical oceanographic data to explain the observed distribution patterns in terms of fundamental oceanographic processes. The main reason for this is the limited data available.

The objective of this inventory was to compile all available Northwest Passage chemical oceanographic data sets into a single data bank and to appraise the quality of the data so as to obtain, for the first time, a broader perspective on what is currently known about the chemical oceanography of the marine channels of the Northwest Passage.

The inventory is ongoing. As new data and previously inaccessible data become available, they will be added to a computerized data base maintained at the Institute of Ocean Sciences, Sidney, B.C. Information about new data sets, older data sets which do not appear in this inventory or errors in this inventory, should be submitted in writing to the Institute of Ocean Sciences.

The following sections contain the rationale for organizing the data as it appears in the tables. Wherever possible, formats were adopted that were consistent with those used in the companion inventory for the physical oceanography of the Northwest Passage (Birch et al., 1983).

TABLE 1.1

FREQUENCY OF OCCURRENCE OF SELECTED CHEMICAL QUANTITIES FOR EACH SAMPLING MEDIUM

	Sea Water	Ice Cores	Sediments	Biota
Dissolved Oxygen	34	-	-	-
pH	3	-	-	-
Nutrients				
Nitrate	18	2	-	-
Phosphate	23	1	-	-
Silicate	17	-	-	-
Ammonia	2	-	-	-
Chl. a	14	3	-	-
Phaeopigments	2	2	-	-
Suspended Particulates	3	-	-	-
Isotopes	2	-	-	-
Alk_t	1	-	-	-
Carbon	-	-	4	-
Heavy Metals				
Vanadium	-	-	-	1
Chromium	-	-	2	1
Manganese	1	-	4	-
Iron	2	-	6	4
Cobalt	-	-	3	-
Nickel	2	-	4	1
Copper	3	-	5	5
Zinc	2	-	6	7
Arsenic	1	-	5	7
Selenium	-	-	-	4
Silver	-	-	2	-
Cadmium	3	-	7	7
Mercury	-	-	6	7
Lead	2	-	7	6
Hydrocarbons				
Methane	1	-	-	-
Oil	1	-	1	-
Pesticides	-	-	-	4
PCB	-	-	-	4
Tar	6	-	-	-
Hexane/Benzene Extractable Compounds	5	-	-	-

2. STUDY AREA

The study area is shown in Figure 2.1; it comprises about 10^5 km^2, approximately the same area as Baffin Bay or Hudson Bay. The marine channels of the Northwest Passage are usually ice-congested, even in summer; it was not until 1905, two years after entering Lancaster Sound that the Gjoa, a seventy-two foot long converted herring boat commanded by Roald Amundsen, completed the Northwest Passage by sea (Mirsky, 1934).

The islands of the Canadian Archipelago are the exposed parts of the continental shelf which extends north from the mainland. The shores of the southern channels are composed of Precambrian rock of the Canadian Shield which extends up the Boothia Peninsula and Baffin Island. Glaciers covered much of the area during the last ice age. Raised beaches, resulting from isostatic rebound, are widespread today except for the west coast of Banks Island which appears to be sinking. Ice scouring is evident in the surface and submarine topography (Dunbar and Greenaway, 1956).

The marine channels of the Northwest Passage are the submerged portion of the continental shelf. Water depths exceed 500 m in Lancaster Sound and M'Clure Strait; a sill of about 150 m depth in Barrow Strait separates these two regions. Water depths in the southern channels are relatively shallow, about 50 m. The waters of the Northwest Passage are a transition between the Arctic Water Mass to the west and Atlantic and Arctic waters to the east. The sill in Barrow Strait limits the easterly flow of Arctic water to the upper 150 m of the water column. The warmer, more saline Atlantic water is found below the Arctic layer and usually occurs only in the deeper waters of eastern Lancaster Sound.

3. CHEMICAL DATA PRESENTATION

3.1 Types of Data

All chemical data have been grouped according to the environmental medium or compartment in which they are found, as follows:

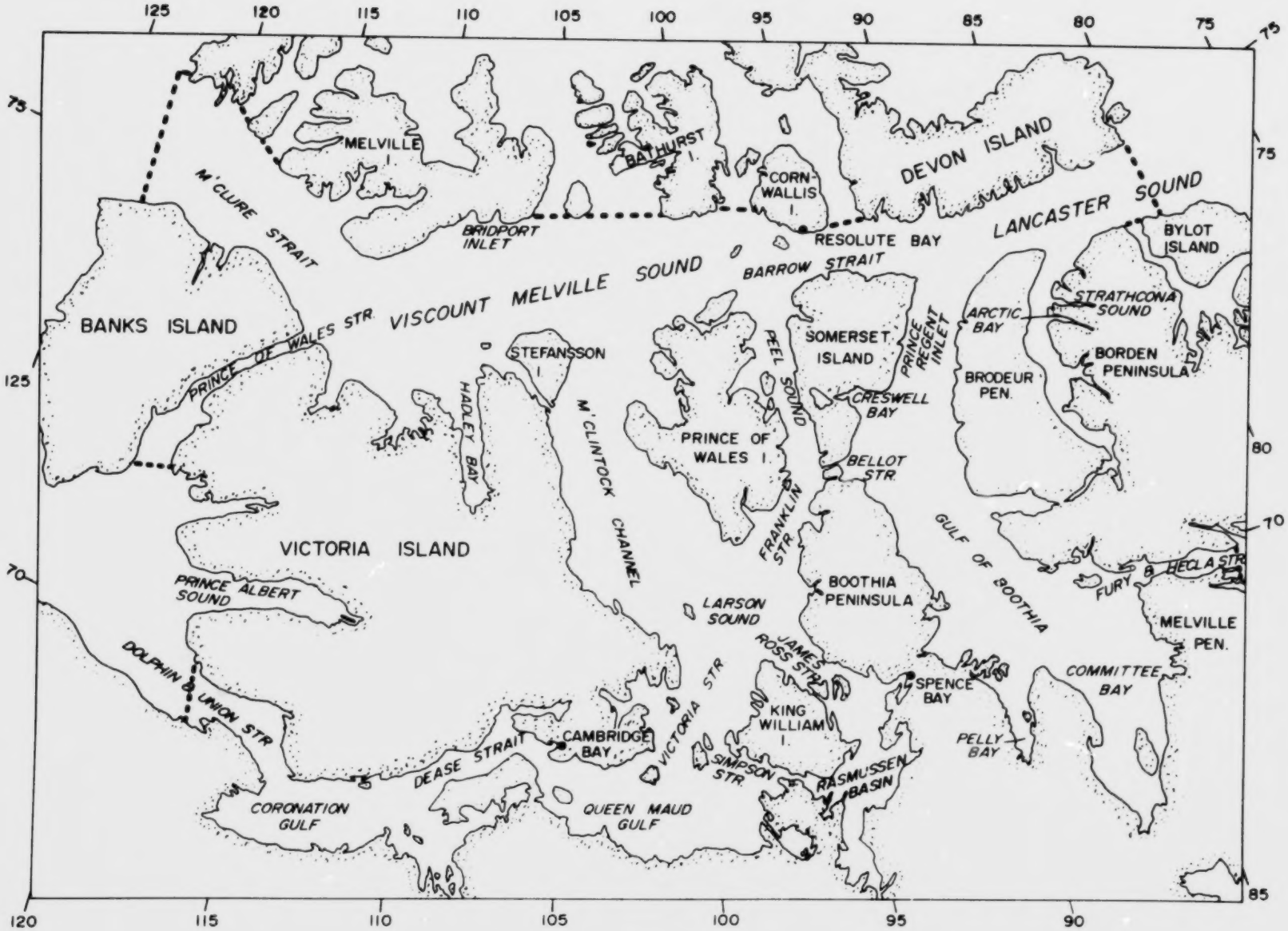


Figure 2.1 Northwest Passage data compilation study area.

Medium	Constituents Included
Sea Ice	- dissolved or occluded
Water Column (Sea Water)	- dissolved constituents - particulate constituents
Sediments	- surficial sediments - sediment cores (interval sampling) - interstitial pore waters
Biota (flora and fauna)	- seawater dwelling organisms - bottom sediment dwelling organisms - marine mammals

The inventory includes all available data of a "chemical nature". This includes commonly-measured substances such as dissolved oxygen, major and minor elemental components, nutrients and less frequently measured substances such as trace elements, hydrocarbons and chlorinated hydrocarbons. Turbidity and suspended particulate material are not truly chemical quantities in the classical sense, but are included in the inventory because they are important factors in the interpretation of chemical data and because they are more logically included with the chemical inventory rather than the physical or biological inventories.

The largest amount and most diverse data are found for water column constituents. Field-based analyses of samples at the time of collection have been rare because most chemical analyses require specialized or sophisticated equipment. Water samples have been frequently processed in the field to the stage where sample preservation is convenient and then returned to the laboratory for analysis. Samples for dissolved oxygen and pH analysis, on the other hand, have been routinely analysed in the field shortly after collection. Other determinations which can and have been made in the field include methane and the reactive nutrients although the latter have also been preserved and returned to the laboratory. Measurements have been made rarely in situ, and then only for dissolved oxygen.

The other types of samples: biota, sediments and sea ice, have been obtained in decreasing quantities respectively and all have been analysed exclusively in the laboratory after preservation for some extended period of time. A summary of the chemical data types included in the inventory is shown in Table 3.1.

TABLE 3.1

A SUMMARY OF CHEMICAL DATA TYPES INCLUDED IN THE DATA INVENTORY

Chemical Constituent	Water	Ice Cores	Sediment	Biota
adenosine triphosphate (ATP)	x			
alkalinity (total)	x			
ammonia	x			
arsenic	x		x	x
benzene extractable compounds (BEC)	x			
cadmium	x		x	x
calcium carbonate			x	
carbon	x			
carbonate	x			
carbon dioxide			x	
$^{13}C/^{12}C$ isotopic ratio	x			
particulate organic carbon	x			
total organic carbon			x	
chlorophyll a	x	x		
chlorophyll b		x		
chlorophyll c		x		
total chlorophyll	x			
chromium				x
cobalt			x	
copper	x		x	x
deoxyribonucleic acid (DNA)	x			
ethane, 2,2-Bis(p-chlorophenyl)-1,1-dichloro- (i.e. p,p'-DDD)				x
ethane, 1-(o-chlorophenyl)-!-(p-chlorophenyl) -2,2,2-trichloro- (i.e. o,p'-DDT)				x
ethane, 1,1-Bis-(p-chlorophenyl)-2,2,2-trichloro (i.e. p,p'-DDT)				x
ethylene, Bis-(chlorophenyl)dichloro- (i.e. DDE)				x
ethylene, 2,2-Bis(p-chlorophenyl)-1,1-dichloro- (i.e. p,p'-DDE)				x
helium				
dissolved	x			
3He/4He isotopic ratio	x			
hexane extractable compounds (HEC)	x			
hexachlorobenzene (HCB)				x
hydrogen				
particulate organic	x			
iron	x		x	x
lead	x		x	x

TABLE 3.1 (continued)

A SUMMARY OF CHEMICAL DATA TYPES INCLUDED IN THE DATA INVENTORY

Chemical Constituent	Water	Ice Cores	Sediment	Biota
manganese	x		x	
mercury				
elemental			x	x
methyl				x
methane	x			
neon	x			
nickel	x		x	x
nitrogen	x			
nitrate	x	x		
nitrite	x			
organic			x	
total dissolved	x			
particulate organic	x			
oil and grease	x		x	
oxygen				
dissolved	x			
$^{18}O/^{16}O$ isotopic ratio	x			
pH	x			
phaeopigments	x	x		
phosphorus				
phosphate	x	x		
soluble reactive	x			
total dissolved	x			
polychlorinated biphenyls (PCB)				x
protein	x			
ribonucleic acid (RNA)	x			
selenium				x
silicate	x			
silicon	x			
silver			x	
starch grains	x			
suspended particulate matter (SPM)	x			
tarballs	x			
tritium	x			
vanadium				x
zinc	x		x	x

3.2 Concentration Units

Several different concentration units have been used over the years to report the chemical results for Northwest Passage data. In order to eliminate confusion and provide for ease of data comparison between data sets, the International System of Units (Systeme International, SI) has been used wherever possible. Exceptions in the use of SI are classes of compounds comprising assemblages of different molecules such as polycyclic aromatic hydrocarbons and polychlorinated biphenyls. The trend toward worldwide use of SI units as a standard has been established by resolutions of the General Conference of Weights and Measures. In addition, the International Union of Pure and Applied Chemistry (IUPAC) endorses the exclusive use of SI units for chemical quantities. An important advantage of using SI units for chemical oceanographic and geochemical data is the ease by which mass fluxes and chemical budgets can be calculated and compared for various elements and chemical compounds.

Factors used to convert units found in original reports to SI units are listed in Table 3.2.

4. OUTLINE OF DATA INVENTORY ORGANIZATION

The data are organized into a chronological series of data sets beginning with the year 1928. No chemical data collected before 1928 could be found. Each data set comprises sampling or chemical measurements taken during a single cruise, or during a sampling excursion usually by a single agency. It is assumed, then, that data within a given data set have been collected uniformly and should be internally consistent insofar as sampling methodology is concerned.

Each data set has been assigned an identification number of the form yy-nnnn, where yy = last 2 digits of the year in which data were collected and nnnn = order of identification for that particular data set for that year. The data set number is a unique identifier which applies throughout this series of inventories; for example, any data set identified as 72-0011 is the same no matter where the reference to it is made. In certain cases, data may have been collected over a period of months or years by a common study team with minor or major differences occurring in the types of data collected at each sampling period. When this occurred, letters were used as a suffix to the data set number to distinguish the various sample

TABLE 3.2

CONVERSION FACTORS AS NUMERICAL MULTIPLES OF SI UNITS

CHEMICAL QUANTITY	TO CONVERT FROM*	TO	MULTIPLY BY
	litres	m^3	1,000
	mg L^{-1}	g m^{-3}	1
ammonia	mg L^{-1} (NH_3)	mmol m^{-3} (NH_3)	58.82
	µg at L^{-1} (NH_3)	mmol m^{-3} (NH_3)	1
arsenic	µg L^{-1}	µmol m^{-3}	13.35
	µg g^{-1}	µmol kg^{-1}	13.35
cadmium	µg L^{-1}	µmol m^{-3}	8.90
	µg g^{-1}	µmol kg^{-1}	8.90
calcium	µg L^{-1}	µmol m^{-3}	24.95
calcium carbonate	% (wt/wt)	mol kg^{-1}	0.0999
carbon	µg g^{-1}	µmol kg^{-1}	83.26
carbon dioxide	% (wt/wt)	mol kg^{-1}	0.227
chromium	µg L^{-1}	µmol m^{-3}	19.23
	µg g^{-1}	µmol kg^{-1}	19.23
cobalt	µg L^{-1}	µmol m^{-3}	16.97
	µg g^{-1}	µmol kg^{-1}	16.97
copper	µg L^{-1}	µmol m^{-3}	15.74
	µg g^{-1}	µmol kg^{-1}	15.74
p,p'-DDD	µg L^{-1}	µmol m^{-3}	3.13
	µg g^{-1}	µmol kg^{-1}	3.13
p,p'-DDE	µg L^{-1}	µmol m^{-3}	3.14
	µg g^{-1}	µmol kg^{-1}	3.14
p,p'-DDT	µg L^{-1}	µmol m^{-3}	2.82
	µg g^{-1}	µmol kg^{-1}	2.82
o,p'-DDT	µg L^{-1}	µmol m^{-3}	2.82
	µg g^{-1}	µmol kg^{-1}	2.82
iron	µg L^{-1}	µmol m^{-3}	17.91
	% Fe (w/w)	mol kg^{-1}	0.179

CONVERSION FACTORS AS NUMERICAL MULTIPLES OF SI UNITS

CHEMICAL QUANTITY	TO CONVERT FROM*	TO	MULTIPLY BY
	litres	m^3	1,000
	mg L^{-1}	g m^{-3}	1
lead	µg L^{-1}	µmol m^{-3}	4.83
	µg g^{-1}	µmol kg^{-1}	4.83
manganese	µg L^{-1}	µmol m^{-3}	18.20
	% Mn (w/w)	mol kg^{-1}	0.182
mercury	ng L^{-1}	nmol m^{-3}	4.99
	ng g^{-1}	ng kg^{-1}	4.99
methane	nL (STP) L^{-1}	nmol m^{-3}	44.64
nickel	µg L^{-1}	µmol m^{-3}	17.03
	µg g^{-1}	µmol kg^{-1}	17.03
nitrogen	mg L^{-1}	mmol m^{-3}	71.43
	mg kg^{-1}	mmol kg^{-1}	0.0714
nitrate	mg L^{-1} (NO_3)	mmol m^{-3} (NO_3-N)	16.13
	µg at L^{-1} (NO_3-N)	mmol m^{-3} (NO_3-N)	1
nitrite	mg L^{-1} (NO_2)	mmol m^{-3} (NO_2-N)	20.83
	µg at L^{-1} (NO_2-N)	mmol m^{-3} (NO_2-N)	1
oxygen	mg L^{-1} (O_2)	mol m^{-3} (O_2)	0.0313
	mL L^{-1} (O_2)	mol m^{-3} (O_2)	0.0446
phosphate	mg L^{-1} (PO_4)	mmol m^{-3} (PO_4-P)	32.29
	µg at L^{-1} (PO_4-P)	mmol m^{-3} (PO_4-P)	1
phosphorous	µg L^{-1}	mmol m^{-3} (P)	0.0324
potassium	mg L^{-1}	mmol m^{-3}	25.58
selenium	mg L^{-1}	mmol kg^{-1}	0.0127
silicon	mg L^{-1} (Si)	mmol m^{-3} (Si)	35.60
	mg L^{-1} (SiO_2)	mmol m^{-3} (Si)	16.64
	µg at L^{-1} (silicate-Si)	mmol m^{-3} (silicate-Si)	1
vanadium	µg g^{-1}	µmol kg^{-1}	19.63

CONVERSION FACTORS AS NUMERICAL MULTIPLES OF SI UNITS

CHEMICAL QUANTITY	TO CONVERT FROM*	TO	MULTIPLY BY
	litres	m^3	1,000
	mg L^{-1}	g m^{-3}	1
zinc	µg L^{-1}	µmol m^{-3}	15.30
	µg g^{-1}	µmol kg^{-1}	15.30

* **Note:**

In Table 2 conversions for dissolved constituents have been made assuming that the density of sea water is 1.00 i.e., that 1 µg L^{-1} is equivalent to 1 µg kg^{-1}.

collections. For example, data set 73-0013 is divided into three parts in the inventory - 74-0013A, 74-0013B and 74-0013C. While there is insufficient reason to regard the three as separate data sets because all samples were collected during a single cruise, the subdivision is made to emphasize that different parameters were sampled by three separate groups of scientists during the sampling period. Gaps may appear in the sequence of data set numbers in this inventory for a particular year, because each data set will not appear in every discipline and geographical area.

This inventory comprises three main tables followed by supporting figures and tables. Table 1 is a chronological list of data sets by data set number (see above). Table 2 is a summary of specific details for actual chemistry data. Table 3 is a listing of times and locations of individual measurements. Where station co-ordinates were not specified in reports, approximate station positions were obtained by measuring plotted station locations on figures located in the report. Measurement locations are plotted in a series of maps in Section 10. There are four standard maps; all are Lambert Conformal Conic projection. The map encompassing the study area is drawn to a scale of 1:7 000 000. The other four maps are drawn to a scale of 1:4 000 000; they yield better resolution of data sets containing closely spaced stations. In all cases, the coastlines have been smoothed and small islands removed to avoid clutter. In data sets where stations are very closely spaced a single symbol is used to reduce smudging. In these cases, the number in parentheses to the right of symbol refers to the number of stations at the location represented by the symbol. To maintain uniformity and facilitate comparison, maps for all volumes in the Arctic data compilations have been drawn from common stock.

A listing of the geographical occurrence of data sets is given in the geographic index. Section 11.2 is an index of references ordered by data set number. The first (primary) reference shown for each data set is the original data report or similar document. The secondary references that follow are other reports or refereed papers based on the primary reference. The listing of secondary references should not be considered an exhaustive literature search. Only those secondary references are included as were found while searching for original data set documents.

4.1 Description of Table Headings

4.1.1 Table 1

Table 1 provides general details of sampling excursions and includes:

(1) identification of the specific region within the study area where sampling was conducted;

(2) the period of time during which the measurements were made;

(3) the ship or agency which collected the data;

(4) a listing of the chemical quantities measured or sampled during the collection period, with those quantities for which data are published and available for inclusion in this inventory in bold type. All entries are not in bold type because

  (a) all samples collected on original cruises may not have been analysed;

  (b) samples may have been analysed but results may not be available in the public domain or may be untraceable;

  (c) samples may be lost or destroyed.

(5) concurrent physical and biological measurements or samples.

4.1.2 Table 2

In Table 2, specific details including analytical results, are given for each quantity measured in each data set. These include:

(1) total number of stations sampled;

(2) total number of samples obtained at all stations;

(3) the number of samples having analytical results greater than the analytical detection limit or greater than 0 when 0 is used to designate the detection limit;

(4) methodology information: details of collection, storage (preservation), and analysis of the sample allowing for judging quality and comparability of data;

(5) the range of reported concentrations. Note that all concentrations are given in Systeme International (SI) units. Conversions between these and previously used units are given in Table 3.l;

(6) the mean and median of the reported concentrations. The median is included because it is not as easily influenced by extreme values as is the mean. It thus represents a better estimate of the middle of a sample population with skewed distribution. Many environmental parameters fall into a log-normal distribution, so the median is probably a better estimate of central tendency. If the number of observations is odd, the median is the middle one of the observations; if the number is even, the median is the average of the two innermost observations. Where a suite of results includes detection limit values, the detection limit is used for computing the mean;

Note: pH is a logarithmic function. It is not meaningful to express a mean value because the mean can be strongly biased to low pH values; consequently means for pH values are not given.

(7) a data quality (confidence) rating based on the rules outlined subsequently (by Section 5.2). The data rating scale uses values from 0 to 4 with 4 indicating data judged to be highest quality, and to have the most versatile potential (refer to Section 5.3).

4.1.3. Table 3

Table 3 provides specific spatial and temporal details for collected samples. These include:

(1) station position (latitude, longitude). For stations where no latitude/longitude are expressed, estimates were made by direct measurement of the plotted station points contained in individual original reports;

(2) station depth;

(3) sampling time (year, month, day and hour in GMT or local time);

(4) number of points (samples in profiles); and

(5) maximum depth sampled.

4.2 Sample use of the inventory

Example 1	Searching for specific-parameter data: e.g., Copper in sea water
Step 1.	Consult Table 1 and scan column labelled "Chemical quantities measured or sampled". Note data sets listing Copper (in bold print) as a measured parameter
Step 2.	Consult data set numbers noted in Step 1, Table 2, to obtain specific details of sample history and reported concentrations.
Step 3.	Refer to Table 3 for station positions, depths sampled, etc. If areal coverage of stations is of interest, go to Section 6 and consult maps for the data set(s) of interest. Maps are ordered chronologically.
Step 4.	Consult the reference list for reports or publications upon which the data set is based.
Example 2.	Searching for data from a specific geographic area: e.g. Copper in McKinley Bay sea water
Step 1.	Consult Geographical Index Note data set numbers
Step 2.	Consult Table 1 for data sets reporting copper in sea water.
Step 3.	Continue as in Example 1.

When additional details concerning data are required, the original data sets must be consulted. Access to these documents may be obtained through Ocean Information Division at the Institute of Ocean Sciences, Sidney, British Columbia.

5. DATA RATING SYSTEM

5.1 Data Quality Criteria

The reported chemical data for the Northwest Passage have been appraised using a rating system based on five data quality parameters related to methodology:

(A) sample collection;
(B) sample storage/preservation;
(C) sample analysis;
(D) analytical precision; and
(E) analytical accuracy.

These five parameters satisfy a fundamental requirement that the rating criteria allow an assessment to be made of any chemical result at any point in the history of a sample from collection to final analysis. In this way, the five parameters shown above represent a measure of the ultimate believability of results.

A quiet revolution has been taking place in recent years in the approach analytical chemists have for quality control and the establishment of well-defined performance criteria for analytical procedures. The most significant step was the general recognition that analytical quality control has been almost universally inadequate in the areas of environmental chemistry. The residual problem is resistance to change; routine analysis and reporting procedures that have been in use for many years will not change overnight. The new concepts as articulated by Taylor (1983), Kirchmer (1983), Long and Winfordner (1983), Glaser et al., (1981) and Cheeseman and Wilson (1978) will eventually be practised and improved by analytical chemists. This evolutionary process will lead to results for environmental chemical samples far superior to those summarized in this inventory.

A general caution is appropriate at this time. A great deal of chemical data has been collected over the years by biologists. The objective in sampling has often been to merely "get a rough idea of metal contents or hydrocarbon contents etc." rather than produce state-of-the-art results. There is an insidious danger in this approach to chemical oceanography and science in general; namely, that it encourages a lower level of care in all aspects of the methodology chain which, when added together, leads to far greater errors than originally intended or considered to be within acceptable limits. For this reason, all sampling teams should always strive for the best results within their capability rather than those somewhat below.

Some general concepts and comments related to the five data quality criteria introduced earlier which indicate how they can be used in the data evaluation are discussed below. A more detailed discussion for specific chemical constituents is given for Section 5.3.

A. Sample Collection

Sampling has traditionally received little attention and has been the weakest link in marine chemical measurements. The method of sampling is crucial, especially for heavy metals or trace hydrocarbons where baseline values are often at or near the detection limit of many analytical techniques. Very specific steps involving sample preparation and collection methodology must be followed with fanatical attention to detail so as to limit the effects of negative and positive contamination. These details are an integral part of the final reported number and must be specified with the results.

B. Sample Storage and Preservation

Once the sample is collected, it must be preserved in such a way that it remains representative of the water body, ice core, sediment, plant or animal from which it was collected or sampled. Storage containers are very important. For the storage of samples for the determination of heavy metals in sea water, for example, a severe hot acid pretreatment of plastic or Teflon storage bottles must be achieved. Bottles used for storing hydrocarbon samples must be cleaned with solvent and baked to rid the containers of contaminating substances. Procedures specifically applicable to samples of other chemical substances are often necessary. Certain types of samples (e.g., nutrients, chlorophyll a, etc.) which are sensitive to change through biological activity must be analysed or preserved immediately after collection before such activity begins to alter the sample irreversibly. Failure to do so will result in samples becoming unrepresentative of the original water mass. Acid is frequently used as a preservative for seawater samples for heavy metal analysis. Because the concentration of heavy metals is exceedingly low in sea water, only acids with the highest level of purity can be used, lest the acid addition introduce more metals into the samples than those occurring naturally. Consequently, the purity of all preservatives must be carefully tested before use and must be specified in collection details. Length of time between collection and preservation should be reported exactly.

C. Analysis

Assessing the comparability of analytical results depends on a detailed description of the chemical protocol used. The protocol is a set of definitive directions that must be followed, without exception, if the analytical results are to be accepted for a given purpose. Protocol fits into the hierarchy of methodology as outlined by Taylor (1983) in the sequence **technique→method→procedure→protocol.**

The simple statement found in many reports that "sterile procedures were used" or that "standard methods were used" does not provide enough information to form an opinion about the reliability of the technique employed or the validity of results obtained. This follows from the fact that most chemical laboratories dealing with the analysis of marine samples recognize that most procedures are not routine and that operational changes are often made. Thus, the instrumentation and analytical conditions employed; the quality and age of reagent chemicals; the values of reagent and procedural blanks; and the finesse of the analyst with the technique will be critical to the eventual outcome of the analysis. All these details must be specified. Also, quantitative proof that the analytical measurement is in control must be provided. Otherwise, the situation articulated by Eisenhart (quoted in Taylor, 1981) will probably be all too true: "Until a measurement operation .... has attained a state of statistical control, it cannot be regarded in any logical sense as measuring anything at all".

Detection Limits and Blanks

Important performance criteria of an analytical method are detection limit and blanks. Many definitions for the term "detection limit" can be found in the literature. A consensus appears near. In qualitative terms the limit of detection is the lowest concentration of an analyte that can be reliably distinguished from an analytical blank (Long and Winefordner, 1983). Over the years, the calculated limit of detection for an element has varied as much as an order of magnitude through the use of different statistical approaches and different interpretations of what detection limit really is. This has important implications for the chemical oceanographic data for the Northwest Passage because many data sets contain detection limit values or values reported simply as "less than detection limit" with the detection limit

unspecified. No descriptions are provided in any of the data sets in sufficient detail (in most cases zero detail) so that no data at the lower end of the reported ranges can be used with any degree of certainty.

Blanks are another performance criterion for an analytical process. Highly variable blanks lead to very poor estimates for the detection limit. All data sets are inadequate in describing analytical blank procedures or values for the blanks. The combination of no information for the detection limit and blanks together with many data sets reporting variable detection limits leads to a situation where the data are uninterpretable. The data will probably remain so because there is no known algorithm which can transform incoherent data into coherent data. In addition, the low level of importance placed upon the concepts of detection limit and analytical blank control as recently as 1975 suggests that the chances are small that these performance criteria would have been determined in a satisfactory manner to have any positive impact on the results reported in this inventory.

D. Precision

Precision is a measure of random error. It is essential for defining significant intra-data differences and is usually expressed as the standard deviation of n analytical measurements. It is possible for an analytical result to be very precise but inaccurate. Precision should be determined for each procedure, type of sample and analyst. It is very important that the estimation of precision is made on "real" samples and not on reference materials. A description of how precision was measured must be provided. The value given for this parameter with a group of data must truly apply to the specific analysis used to produce those data and not simply be a statement of that which has been achieved or that which can be achieved or expected by others for the same or a similar analytical technique. Precision may be estimated by numerous replicated determinations on a sample. This, however, probably leads to a biased estimate since the analyst is apt to give greater care with samples known to be used to measure variance. A better estimate can be made by blindfold determination of several replicated samples (covering the range of concentration expected for the samples) run randomly throughout the period of analysis.

E. Accuracy

Accuracy is a measure of systematic error. As pointed out by Kirchmer (1983), there is a problem in defining accuracy because of the discrepancy between the accuracy of individual analytical measurements and the accuracy of average (long-run) values obtained from a number of replicate measurements (n must be specified). Common practice has been to define accuracy as the deviation of the mean of n measurements from the "true" value; this is the definition used here. Another school of thought applies the term "bias" (equivalent to "systematic error") to the definition above and defines accuracy as the combined random and systematic errors of results. Systematic errors can arise from a variety of sources including:

- unrepresentative sampling;
- instability of samples between sampling and analysis;
- interference effects;
- biased calibration;
- a biased blank correction; and
- inability to determine all forms of the determinand.

It is clear that an accurate result can only occur after each of the above factors is defined quantitatively and precisely.

Accuracy can be estimated by comparing analytical results with the certified values for a reference material. Unfortunately, certified reference materials are available for only a limited number of elements or compounds in the various sample matrices or environmental phases. In practice, this means that the matrix of the reference material and that of the sample will rarely, if ever, be chemically equivalent. Consequently, when an analyst uses a reference material to validate an analytical procedure, the user of the data must judge whether the two matrices (sample and reference material) are sufficiently similar to warrant the use of the results for the reference material as evidence for the validity of the analytical results obtained for actual samples. A simple example illustrates this point: In judging the quality of an apple only another apple, which has been judged and certified to be of specified quality, can be used as a reference. An orange, no matter how good, will not do. The apple may, in fact, be of high quality but this cannot be established on the strength of information obtained using an inappropriate reference material (the orange). In the same way, results for heavy metals in seal livers, for example, cannot be validated using National Bureau of Standards Reference Material

1571 (Orchard Leaves). At the very least, the lipid and oil content of the liver tissue would lead to chemical interferences far greater than those likely to occur with orchard leaves. The degree of interference will be specific to the analytical method; therefore, when assessing the quality of a data set, the experience of the scientist is very important for establishing criteria for accepting/rejecting reference materials in a given situation according to the specific details of each analysis (see Note 8 in the preface to Table 2).

When satisfactory reference materials are not available, accuracy of a method is sometimes estimated by measuring the ability of the method to recover a standard spike added to a portion of the sample or added to a material having a matrix similar to that of the sample. This method may fail to provide a reliable estimate of analytical accuracy because the added standard may not have a chemical reactivity which is equivalent to the component in the sample; it may, therefore, respond differently to the chemical steps involved in the determination. While this method of additions cannot prove that an analytical procedure is accurate it can (by demonstrating poor and highly variable recoveries) identify methods that are inherently imprecise. When certified reference materials or standards are used, standardization should be blindfold and occur at random with replication to avoid biased results caused by analysts who pay special attention to standardization samples and who know or are likely to guess the established reference material composition. In addition, more than one reference material should be used to validate a given method whenever possible. This may identify matrix interferences that go unnoticed using a single matrix. When systematic errors are found (under or over-recovery of the determinand) the results should be reported without correction for recovery data because the application of a correction factor may do little beyond replacing one wrong estimate with another.

Alternatives are available for demonstrating analytical accuracy. Agreement of results determined using different analytical methods employed by different laboratories during intercalibration exercises is one way of increasing confidence in the results. Although reference materials and intercalibrated results may generate confidence in an analytical result, they still can not prove whether the value obtained is an accurate representation of the true value in the environment. Satisfactory agreement among triplicate samples, consistently low blanks and results that make sense (and are consistent with other supporting measurements) will increase confidence.

It is important to distinguish between reference materials and primary standards. The chemical composition of a reference material is empirically derived

from the pooled analytical results of several laboratories using different methods and instruments for the assay. Values for reference materials are commonly described as certified values, recommended values or average compositional values. By contrast, primary standard values are "true" values and are independent of the method of analysis. They are inherently more reliable than the values "recommended" for reference materials. A more detailed discussion of "standard" samples can be found in the review by Abbey (1980).

5.2 Definition of the Rating System

All data have been rated by a 5-level rating system, defined as follows.

Rating Score	Data Quality
0	data are found (or judged) to be wrong or unrepresentative example: seawater samples collected in metal Nansen bottles with metal content as the intended analysis
1	data are suspect because of ill-defined doubts example: magnitude of results falls outside previous scientific experience (see Preface notes to Tables 1 and 2 for further details).
2	insufficient information to assess data; data were not investigated (where data no longer exist, an explanation is entered in remarks column).
3	data are internally consistent; patterns or trends within data are probably real but comparison with other data sets may be a problem (because of incomplete or improper standardization);
4	data are internally consistent and are sufficiently standardized or tied to a reference that comparison with other data at this rating score should be possible. (Data may not be accurate in an absolute sense because all data may be defined relative to a reference material having a different matrix).

This rating system can be criticized for not being hierarchical because the 2 rating score is misplaced. An hierarchical rating scheme can be produced, however, by rearranging the rating scores in the order 2, 0, 1, 3, 4. It is suggested that this reordering of data quality levels be used by those more comfortable with an hierarchical scheme rather than creating a new rating system. This will avoid the confusion of several rating schemes within the data inventory series and provide continuity with the inventories already published.

This rating system is intended as a guide and not an absolute statement of data quality; it is one of several ways to represent the quality of acquired chemical data. The ideal rating system would use only objective criteria. This is, however, not possible because of the lack of standard analytical procedures in use and because of the significant changes in sample collection and storage techniques and philosophy that have occurred in recent years. Consequently, a certain subjectivity is inherent in the appraisal of data and any given system for objective data quality appraisal is almost doomed to fail as soon as it is chosen because it will rely to some degree on the discretion of the appraiser. This is particularly true in this inventory of retrospective data quality evaluation, because details of sample history are poorly documented and additional clarification cannot be readily obtained.

Ultimately, the quality of the data will reflect the weakest link in the methodology chain (see 5.3 below). Thus, in cases where a deviation from acceptable methodology is considered so serious that the validity of the obtained results is in doubt, a value of 0 is assigned. Consider the collection of seawater samples for heavy metal analyses, for example. Suppose that the samples were stored acidified in unprepared PVC bottles. During the storage period some metals would leach out of the PVC material which forms the walls of the bottle, so introducing positive contamination to the sample. Because all sampling bottles can differ slightly and sometimes greatly in their composition of impurities, the magnitude of the contamination can be random among samples, so that not even comparison of concentration values within the sample set can be justified in a relative sense. The clear lack of confidence in the results together with the strong suspicion that the samples are no longer representative of the original water mass would result in the assignment of a data rating value of 0. It should be noted that the chemical analyses could have been carried out with well-accepted analytical techniques using the finest state-of-the-art instrumentation. In fact, the analyses could be very precise and very accurate based on the analysis of certified reference materials. Unfortunately, despite the excellence of the analysis the results would still be hopelessly wrong. With reference to this inventory of chemical oceanographic data for the Northwest Passage, cases as obvious as the example above were rare. The most common characteristic of the data sets was an insufficient description of how the results were generated. This led to the assignment of a data rating of 2 to the majority of data sets. It must be stressed, however, that a 2 rating is no better than a 0 rating unless missing information is supplied. If that information no longer exists or in fact never

existed, a 0 rating would be warranted. Those readers interested in data sets rated 2 or below are advised to inspect the data very carefully and investigate the data to a level required by the use to which they intend to put the data.

As already noted, merely stating that a given analytical method was used for a chemical analysis is not sufficent information to reach an opinion about the quality or validity of the data. The quality of analysts varies widely. What can be attained by one analyst can be beyond the abilities of others even when "identical" procedures are employed as demonstrated on more than one occasion during inter-laboratory calibration exercises.

5.3 Significance of the Data Rating Value

The usefulness of the data will depend on the use for which the data are intended, i.e., which question or environmental concern is being considered. The data rating value may be seen to separate groups of data; this can lead to different degrees of understanding environmental processes. It should be recognized that the rating system is not specific to chemical data. Rather, the system seeks to distinguish fundamental differences in information such as those data sets which contain invalid data; those which limit comparisons of numbers to within themselves; and those which allow comparison between data sets.

At least three levels of data quality are essential to establish significance of data:

Level I: Identification of Ranges of Values

At this least discriminating level, the data can be assessed for whether or not their reported ranges fall within the general limits expected for coastal or estuarine areas. Gross errors, contamination, or methodology problems would be identified. Even if the ranges of data were physically possible, this level of data scrutiny does not provide any site-specific information, or determine whether the data were representative of a given geographic area, depth or particular time of year when the data were collected. Most data, even data scoring 1 or 2 could be tentatively used in such a way.

Level 2: Comparison of Data within the Data Sets

At this level, comparison of profiles or time series within a given data set could be used to determine whether measurements of water or sediment properties at particular stations were significantly different from each other on the basis of precision of measurement. Data with a rating of 3 could be used in this instance provided the precision was sufficient to resolve differences within the range of measured values.

Level 3: Comparison of Data Between Data Sets

This is the minimum rating level required for studies of long-term variability of chemical components. It is also required for studies describing processes that control lateral and vertical distributions of chemical components. Studies involving the detection of subtle shifts in chemical equilibria that may lead to downstream effects (such as perturbations to biological systems or climatological changes) also require data with a high level of confidence and a measure of absolute accuracy. Only data with a rating of 4 could be considered for such applications, but will be inadequate when the samples are not representative of the environmental medium sampled. Full interpretation of chemical oceanographic data is impossible in isolation from knowledge of water column structure. Thus, when concurrent measurements of temperature, salinity and perhaps nutrients and dissolved oxygen or some other related variable are not available to support the chemical data, even 4-rated data will be of limited value. In such cases conclusions will be tentative, being based primarily on inference and conjecture.

5.4 Effect of Positioning on the Data Quality

Accuracy of the station positions is a factor essential to the proper use of the data inventory. This is particularly relevant when knowledge of spatial distributions of water or sediment properties are essential for the understanding of a particular oceanographic phenomenon. Many station positions were obtained using rudimentary techniques such as dead reckoning, or radar range and bearing at distances far from shore; consequently, there may be considerable uncertainty about the geographical

location at which samples were obtained. This leads to the dilemma that some chemical data which have received a 4-rating may in fact be of little value in defining important spatial distributions.

Data sets for which no details of positioning or position co-ordinates were given are designated by the term NPG (No Position Given) in the remarks column of Table 2. Entries for these positions appearing in Table 3 were estimated graphically from original report figures and are so indicated and are intended as a very rough guide only.

5.5 Some Important Factors Relevant to the Data Appraisal Process.

The sampling and sample processing techniques used in chemical oceanography are not universally applied to all parameters. Reliable results for certain parameters require the successful application of stringent and highly specialized precautions, while reliable results can be obtained for others using standard routine methodologies. Following is a brief discussion of factors that one must consider when evaluating data and examples of difficulties that can occur during processing of samples for the most commonly observed parameters in Table 2 (heavy metals, nutrients, dissolved oxygen, hydrocarbons, chlorinated hydrocarbons).

5.5.1 Heavy Metals

A. Sea Water

Many of the pitfalls associated with obtaining reliable heavy metal data in sea water can be illustrated by following the history of a water sample from the time of collection through to the completion of the analysis.

The first step facing the chemical oceanographer is the collection of a representative sample. Although this is probably the most important link in the chain of analytical operations, historically it has been given far less thought and care than it deserves. The sampling device must be constructed of materials that will not contaminate the sample. Thus, all metallic components of commonly-used samplers must be removed or replaced. In addition, samplers must be thoroughly cleaned and kept clean between sampling casts. Teflon is an excellent construction material for

samplers because it is usually manufactured with only very low trace metal impurities and can be hot acid cleaned. Samplers made from this material must be carefully cleaned, however, because during the fabrication of Teflon into a chemical apparatus, particles of grit, rust and dirt may become embedded in the surface to act as a source of contamination for long periods of time. The standard Niskin-type water sampler (which has been used extensively in Beaufort Sea sampling) usually contains an internal rubber-coated metal spring or rubber shock cord as part of the closing mechanism. Both are unacceptable since metal impurities can be present in these materials (for example zinc oxide at percent levels). Thus, the use of these samplers for the collection of seawater for zinc analysis is not recommended unless the standard internal spring has been replaced by a Teflon-coated spring or similar contamination-reducing component. Because the sea surface microlayer is enriched with heavy metals, it is advisable to obtain subsurface seawater samples by using samplers such as the Niskin GO-FLO sampler that passes closed through the sea surface layer. Peristaltic pumping systems employing acid-cleaned polyethylene or Teflon tubing have also been used to avoid some of the contamination associated with the surface layer and general handling but these are usually practical only for shallow depths.

The necessity for carefully choosing a sampler is clearly apparent from the results of recent sampler intercomparison studies. Spencer et al., (1982) report that surface water samples taken with a Teflon-coated Niskin GO-FLO sampler possessed much higher concentrations of zinc (7-10 fold) and lead (2-3 fold) than those collected directly in Teflon bottles. Bewers and Windom (1982) compared GO-FLO, Niskin and Hydro-Bios samplers. Their results show that the lower concentration seawater samples (Cd, Cu, Ni, Zn, Fe, Mn, Hg, Mo, and V) were collected using GO-FLO bottles in which O-rings and seals were replaced by silicone equivalents; drain cocks were replaced by those made of solid Teflon. Modified Niskin samplers appeared to be only slightly inferior to the modified GO-FLO, but unmodified GO-FLO and Hydro-Bios samplers were generally poorer.

Other precautions that should be observed during the collection of seawater samples for heavy metal analyses include:

(i) use of plastic-coated steel rope, Kevlar rope or stainless steel wire rope in place of the standard iron hydrographic wire (Bewers and Windom, 1982);

(ii) stainless steel weights wrapped in plastic to weigh the hydrographic wire;

(iii) obtaining surface samples from a small boat by heading into the wind against local surface currents and holding the sample bottle so that it precedes the boat through the water.

Once collected, the sample must be transferred to a storage bottle for some period of time. The storage container must be prepared before use in order that the possibility of the bottle contaminating the sample is reduced. This usually involves a multi-stage and multi-day hot acid-cleaning procedure as described by the Participants in the Lead in Seawater Workshop (1976). Cleaned containers are stored wrapped in polyethylene film and handled only with polyethylene-gloved hands. A preservative is usually added to the samples to inhibit biological activity and the absorption of heavy metals onto the walls of the storage containers. The preservative is most often HCl and must be of sufficient purity to ensure that any trace metal impurities associated with the addition of acid are insignificant relative to the quantity of metal present in the sample.

Most heavy metals samples can be stored in Teflon, polyethylene or quartz when properly cleaned. Mercury should not be stored in polyethylene because mercury vapour readily passes into and through the walls of these containers. The question of whether the sample should be filtered before acidification is controversial. The procedures involved during filtration (particularly on a dirty ship or other field environment where laboratory conditions are not easily reproduced) may often result in greater contamination than would otherwise result from the acidification of unfiltered samples. Sometimes filtration cannot be avoided. On these occasions, filtrations should be carried out (a) under reduced pressure in a closed system apparatus which allows the sample to flow directly from the sample bottle through a pre-cleaned filter into a second pre-cleaned storage bottle or (b) using positive pressure (compressed filtered N_2) in a device that allows direct filtration of a seawater sample from the sampler into a storage bottle. Ideally, the elapsed time between sample collection and analysis should also be minimized to reduce the possibility of sample modification during storage. For instance, prolonged storage may favour the formation of very strong or kinetically-hindered metal complexes with naturally-occurring chelating agents which may, in turn, prevent the formation of an extractable complex with a chelating agent, inhibit a colour forming reaction or impede the reduction of an ion at an electrode. The ultimate result may be that normal analytical methods produce low results or miss a component entirely.

The analytical methodology must also be considered in view of current practices. Any analytical method may be internally consistent yet produce vastly different results from another method, making intercomparison difficult. An example is reported by Brewer and Spencer (1970) where results for the determination of cobalt in sea water obtained from the chelation/extraction/atomic absorption method were five to six fold greater than those obtained by neutron activation of the freeze-dried salts of replicate samples. Even primary reference standards may not be able to resolve such a discrepancy because of matrix interferences, for example. Contamination arising during analysis from atmospheric fallout, reagents, sample handling etc. must also be controlled. The recent trend toward performing heavy metal analyses in laminar flow work stations or Clean Rooms is understandable. Even so, it is not unusual to find members of the most advanced and prestigious marine analytical laboratories in the world disagree with each other by factors of 5 or more on the concentrations of metals in standardized seawater samples during international intercalibration exercises (Sugawara, 1978; Bewers et al., 1981; Olaffson, 1982). Deviations from the standardized or accepted values can exceed ±100% in these intercalibration studies.

The facts presented above emphasize several important points. Steps should always be taken to limit handling and the addition of preservatives to samples. It is also very difficult to form an objective opinion about the quality of a trace metal data set when details such as the ones described above are not given. A true perspective of the heavy metal data as a whole can be achieved by considering the scientists' awareness of problems associated with sampling, storage and sample handling at the time the samples were collected. As the importance of controlling contamination became evident over the years, more effort has been made to systematically eliminate or reduce as many sources as possible. The result has been a continued decrease in the reported values for heavy metals in sea water over the past 40 years (see Table 5.1). It is obvious in many cases (and strongly suspected in others) that although most of the heavy metal data obtained for the Northwest Passage were collected during the past eight years, the techniques used and level of awareness are more characteristic of those used 40 or more years ago. Viewed as a whole, therefore, the quality of heavy metal data for Northwest Passage sea water is probably very low and the data little more than collections of random numbers. During the past several years, artfully and carefully analysed samples for heavy metals have generated results conclusively showing that heavy metals are not

TABLE 5.1

BASELINE CONCENTRATIONS OF SELECTED TRACE METALS IN OPEN-OCEAN WATERS REPORTED DURING THE LAST FORTY YEARS

REFERENCE	UNITS	Cd	Cu	Pb	Zn	Ni
COMPILED DATA						
Sverdrup et al., 1942	μmol tonne^{-1}	present	157	1.9	85.0	---
Goldberg, 1965	μmol m^{-3}	0.98	47	0.14	153.0	---
Brewer, 1975	μmol m^{-3}	0.89	7.9	0.14	75.	---
RECENT ORIGINAL DATA						
Zirino and Healy; 1971	μmol m^{-3}	—	—	—	26.0	---
Chester and Stoner, 1974	μmol m^{-3}	0.62	12.6	—	21.0	---
Eaton, 1976	μmol tonne^{-1}	0.53	—	—	—	---
Bender and Gagner, 1976	μmol m^{-3}	<0.90	1.9	—	—	---
Windom and Smith, 1979	μmol tonne^{-1}	—	0.3 - 5.2	—	—	—
Bruland et al., 1978	μmol m^{-3}	—	—	—	0.15 - 9.2	—
Bruland, 1980	μmol tonne^{-1}	0.002 - 1.11	0.54 - 5.3	—	0.08 - 9.1	—
Boyle et al., 1981	μmol tonne^{-1}	<0.01 - 0.08	0.05 - 1.5	—	—	1.03 - 3.5
Danielsson, 1980	μmol tonne^{-1}	0.07 - 0.84	1.3 - 5.5	0.10 - 0.82	—	3.1 - 16.2
Kremling and Petersen, 1978	μmol m^{-3}	0.03 - 0.04	1.6 - 2.7	—	0.76 - 2.0	—
Patterson, 1974	μmol m^{-3}	—	—	0.07	—	—
Heggie, 1982	μmol tonne^{-1}	—	2 - 25	—	—	—

erratically distributed in the oceans as was the earlier uncomfortable conclusion drawn by many chemical oceanographers based on data dominated by contamination effects. Rather, horizontal and vertical distributions are now known to vary systematically and can be explained by geological, chemical and physical phenomena. Such evidence of physical and geochemical controls on heavy metal distributions leads to further confidence in metal data and is an aid when evaluating data collections.

B. Sediment and Biological Tissues

In general, the pitfalls encountered in the sampling, storage and analysis of marine sediment samples are fewer than those encountered with seawater samples because the concentrations are commonly about three orders of magnitude higher. Obtaining a representative sample still remains a challenge. Many grab samplers such as the Ponar, screen top Van Veen, Petersen and Kahl box sampler collect substrate together with overlying water. Extreme care must be taken that the overlying water does not wash out the fine material within the surface layer during removal of sediment sample from the sampling device. Before sample collection, it is wise to consider the types of analyses that will be performed on the sample so that a suitable sub-sampling strategy can be devised. Walton (1978), for example, suggests that material from the outer portions of the sample can be used for physical analyses, whereas interior material which is more protected from disturbance or contamination can be used for metal or hydrocarbon analyses. Subsampling for one type of compound should not contaminate the remaining sample before removing a subsequent subsample. Some analysts prefer to analyse a subsample from a homogenized whole sediment; others analyse a given grain size fraction. Because trace metal content usually increases with surface area of particles, intercomparison of many data sets is often tenuous when different size fractions have been analysed. Also, errors may result when sieves made from copper or brass cloth are used to segregate grain sizes. For the analysis of heavy metals in benthic biota it is important that the animals be purged of gut contents before analysis, lest the inorganic sediment present in the gut be included in the estimation of biological metal. For small specimens it is often possible to obtain more reliable results by digesting the whole specimen(s) and subsampling the digest as opposed to subsampling the specimens before the digestion step. For larger animals such as fish and marine

mammals specific organs are usually examined due to the vast range of values possible for various body organs. Special precautions must be taken to check for interferences resulting from the presence of natural oils.

For both sediment and biological metals, methods involving conditions which favour the formation of covalent halides (e.g., hot sulphuric, perchloric or phosphoric acid in the presence of halide ions) should be examined carefully given the possible quantitative distillation of chromium, arsenic, antimony, tin, selenium, rhenium and osmium and the vaporization of substantial amounts of germanium, molybdenum and mercury under such conditions, particularly when Teflon digestion bombs are not employed in the procedure.

5.5.2 Nutrients

The measured concentration of a given nutrient in a sea water sample is very dependent on analytical methodology. The term "reactive nutrients" is often used to emphasize that results refer to those quantities of nutrient that react under the conditions of specific analytical methods. Phosphate is usually measured as soluble inorganic orthophosphate ions which react with acidified molybdate reagent to yield a phosphomolybdate complex which is then reduced to a highly coloured blue compound. Currently used methods for ammonia determination (such as the indophenol blue method) usually measure NH_3 plus NH_4^+ . Earlier methods included varying amounts of labile organic nitrogen compounds such as trimethylamine and amino acids in the determination. Nitrite is determined as an azo dye formed by the stepwise stoichiometric reaction of nitrite ion with an aromatic amine. Nitrate is determined by the same method as nitrite after passing the sample through a catalytic reductor column to reduce nitrate to nitrite. Since many procedures do not measure nitrite separately, the results for nitrate would more accurately be stated as nitrate plus nitrite. The error involved is usually not significant, however, because nitrite is present only at about 5% of the concentration of nitrate. Silicon is determined as dissolved inorganic silicate based on the formation of a yellow silicomolybdic acid when an acidic sample is treated with molybdate solution. Colloidal silicic acid in sea water usually reacts, but polymeric chains containing three or more silicic acid units react very slowly.

The procedures used for sampling and storage of nutrients in sea water are often modified for specific applications. Some general points are noteworthy:

(a) for best analytical results, samples should be analysed within about one hour of collection;

(b) short-term storage should be in a cool, dark place;

(c) if long-term storage by freezing is necessary, it should be limited to a maximum of two months to limit variance caused by storage (Macdonald and McLaughlin, 1982);

(d) quick-freezing is an effective method for long-term storage of all nutrients except for silicate in estuarine water having a salinity of less than 27×10^{-3}. Caution must also be observed for samples containing silicate in excess of ca 70 mmol m^{-3} or stored for longer than five months. In these cases, data may be successfully recovered provided that thaw times are long enough. The addition of preservatives to samples should be avoided to reduce the chance of contamination and possible interference with the analytical technique. In particular, acidification of phosphate samples is not recommended because of the tendency to favour hydrolysis of combined phosphorus. The addition of chloroform to phosphate samples should also be avoided, because this requires a preliminary sample filtration step which should be avoided if possible. Where water is visibly turbid, PO_4 samples must be filtered. This is particularly important in estuarine samples;

(e) silicate samples must be stored in plastic; phosphate samples keep best in plastic as uptake of phosphate by glass surfaces has been observed; nitrite/nitrate samples can be effectively stored in glass or plastic;

(f) before analysis, silicate samples should be thawed for a minimum of three hours to allow for depolymerization (exact time depends on length of time stored in the frozen state).

Although nutrient elements have been analysed frequently by many laboratories for many years, they cannot be routinely determined with sufficient confidence to resolve differences in nutrient water column structure. This is illustrated by the results of a 20-nation nutrient method intercalibration exercise conducted by ICES (International Council for the Exploration of the Sea, 1977) which showed that only 9% of the total variance of laboratory values was attributable to the "within laboratory" component of variance. Thus, the ability of each laboratory

to obtain a precise result was much better than the overall accuracy observed during the intercalibration exercise. Coefficients of variation (CV) for the determination of the different nutrients ranged from 4% to 21%. Because the intercalibration was not a blindfold test, these CV's probably overestimate the precision that would be expected under routine laboratory conditions.

5.5.3 Dissolved Oxygen

Almost without exception, the chemical determination of oxygen in sea water is based on the Winkler titration (Carritt and Carpenter, 1966). Samples must be carefully obtained, fixed and stored all the while limiting or eliminating contact with atmospheric oxygen until after formation of the tri-iodide complex. Numerous systematic errors can occur during the determination of dissolved oxygen by the Winkler titration method most of which result in an overestimation of oxygen content. Utmost care must be taken in the preparation of iodate solution for standardization by using only the highest quality primary standards.

In situ oxygen probes have also been used to measure dissolved oxygen. Because sensor calibrations often wander or because compensation for changes in temperature and salinity are insufficient or too slow, the sensitivity and accuracy of the in situ probe may be insufficient to resolve dissolved oxygen concentrations in the water column or during surface tows. Oxygen concentrations obtained from in situ probes should be treated as approximate unless compelling evidence is provided to indicate otherwise.

5.5.4 Hydrocarbons

A. Sea Water

In the past, the methodologies used by various researchers for sampling, sample preservation and storage, and cleaning procedures have generally been used on an ad hoc basis each designed and implemented to suit a particular study or application. The best samplers appear to be made of glass or stainless steel which can be effectively solvent cleaned. Contamination during sampling is a serious and commonly encountered problem. Hydrowire can be easily contaminated by oil and grease found in plentiful quantities on the sampling vessel and particulate fallout

from combustion of the ship's fuel can also be present. Care should be taken to ensure that all sampling equipment is kept clear of ship's exhaust when travelling between stations. Kevlar or stainless steel cable is preferred for sample casts in conjunction with samplers that pass closed through the sea surface to avoid being contaminated by the natural and anthropogenic hydrocarbon componds which concentrate in slicks at the surface. This is particularly important for ship-based operations where a halo of surface oil can quickly form at a station and extend a considerable distance away from the vessel. Samples should be stored in the dark and in the cool. They should contain added bactericides such as mercuric chloride, sodium azide, chloroform or methylene chloride to limit alteration of the sample through photolysis or bacterial action. Wong et al., (1976) reported that as much as 30% of dissolved PAH was removed from solution by adsorption onto the walls of the storage container during the sample storage period. It is prudent, therefore, to wash sample containers with solvent to recover analyte that would otherwise be lost and lead to an underestimation of the dissolved PAH content of the samples.

B. Sediments and Biota

Hydrocarbons in sediments and biota present fewer contamination problems than seawater samples because concentrations are very much greater than in sea water. Sediments can be successfully collected with grab samplers with the same reservations as outlined above for sampling sediments for heavy metals. No special precautions beyond those already mentioned above need be taken for biological samples.

During the analysis step, however, several pitfalls may occur. Soxhlet extraction of sediments is common. There is some evidence that this may encourage an in-situ contamination through the formation of PAH compounds. Results for low boiling compounds (low molecular weight compounds) should be considered highly unreliable if rotary evaporation techniques have been used to reduce extract volumes.

It is very difficult to compare hydrocarbon results among various studies. Results are often presented for classes of compounds such as aliphatics, polyaromatics, chlorins, fatty acids etc. Column chromatography separations vary from one method to another resulting in the aliphatics determined by one procedure not being equivalent to the aliphatics measured in another. Quantification of specific

compounds may be based on the co-injections of standards in a GC or by reference to an internal standard. Total PAH is defined by some authors as the sum of all resolved peaks, a specifically identified assemblage of PAH or the sum of resolved and unresolved PAH. Different methods generate different looking results. For instance, PAH by fluorescence may generate results in units of a standard pure PAH compound such as chrysene while PAH by GC produces results for specific compounds. An example given by Awad (1981) illustrates that it can be impossible to obtain the same results applying two different techniques on the same sample even if they differ in just a single step. In the two techniques by Blumer et al., (1971) and Vandermeulen et al., (1976) applied to sediments, the extraction steps were different but the purification steps were the same. The weights of organic extracts and yield of hydrocarbons produced from the first technique, however, were three to seven times higher than those obtained from the second.

Intercalibrations using different analytical techniques for hydrocarbons are usually unsuccessful. An example is the analysis of sediment samples from an area affected by the ARGO MERCHANT oil spill using u.v. fluorescence spectroscopy and gas chromatography. Although the samples used were considered to be identical, the two research groups carrying out the analyses reported no significant correlation of results for values less than 100 μg/g. In addition, Zsolnay (1978) reported no significant correlation between the results obtained by GC and high performance liquid chromatography (u.v. detector) when analysing organism tissues.

Extreme caution must be exercised when comparing concentrations for various hydrocarbon groupings or compounds among the various data sets.

5.5.5 Chlorinated Hydrocarbons

The analysis of chlorinated hydrocarbons such as pesticides and polychlorinated biphenyls presents great difficulty, because concentrations of these substances in sea water are very low (parts per 10^9 or less) leading to the need for large sample sizes (10 litres or more). Problems arise from the handling of these large volumes during the complicated multi-stage analytical procedures employed in the determination of chlorinated hydrocarbons. Procedures are often more art than science where the skill of the analyst becomes paramount to the end result. Contamination of samples can be a serious hazard because of the previous widespread use of chlorinated hydrocarbons in the manufacture of industrial and commerical

products. In recent years the manufacture of most chlorinated hydrocarbons and their use in other products has been controlled by legislation, so that the chances of contamination during sampling sea water should be decreasing.

Because chlorinated hydrocarbons are hydrophobic and lipophilic, they tend to concentrate at particle surfaces and in the fatty tissues of organisms. Consequently, their determination in biological tissues and sediments is much simpler than for sea water, although procedures remain complicated and non-routine so that results can be erratic if careful attention is not paid to each step of a procedure.

Regardless of the medium sampled, exact details of sampling, storage and analysis must be specified in order that data quality can be assessed. Quantification is very difficult because of the many isomers and interferences normally encountered in chlorinated hydrocarbon assemblages. Demonstrated effective control of low level blanks can increase confidence in the results.

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7. DATA INVENTORY TABLE 1.

NOTE: Entries appearing in column 5 in bold type indicate those chemical quantities reported in Table 2. Entries in regular type refer to quantities reported to have been sampled but for which no data were provided by original authors.

LIST OF ABBREVIATIONS USED IN TABLES 1 and 2

Alk_t	-	total alkalinity
AAS	-	atomic absorption spectrophotometry (this general term used when it is not known whether instrument was used in flame (FAAS) or graphite furnace (GFAAS) mode)
Ag	-	silver (AW = 107.88)
AgDDC	-	silver diethyldithiocarbamate
AOACMA	-	Association of Official Analytical Chemistry Methods of Analysis
AOL	-	Atlantic Oceanography Laboratory (of the Bedford Institute of Oceanography)
APDC	-	ammonium pyrrolidine dithiocarbamate
AS	-	Absorption Spectroscopy
As	-	Arsenic (AW= 74.92)
ATP	-	adenosine triphosphate
AuA	-	auto analyser
B	-	boron (AW = 10.81)
BEC	-	benzene extractable compounds
BIO	-	Bedford Institute of Oceanography
BT	-	bathythermograph
C	-	carbon (AW = 12.01) or conductivity when located in concurrent physical measurements column
$\delta^{13}C$ (o/oo)	-	$^{13}C/^{12}C$ isotopic ratio
$CaCO_3$	-	calcium carbonate
CH_4	-	methane
CO_2	-	carbon dioxide
CO_3	-	carbonate
Ca	-	calcium (AW = 40.08)
CCl_4	-	carbon tetrachloride
Cd	-	cadmium (AW = 112.40)

$CHCl_3$	-	chloroform
Chl. a	-	chlorophyll a
Chl. b	-	chlorophyll b
Chl. c	-	chlorophyll c
ΣChl.	-	total chlorophyll
Cl	-	chlorine (AW = 35.45)
CL	-	confidence level
Co	-	cobalt (AW = 58.94)
Cr	-	chromium (AW = 52.00)
CTD	-	conductivity-temperature-depth
CVAAS	-	cold vapour atomic absorption spectrophotometry
Cu	-	copper (AW = 63.55)
DDDC	-	diethylammonium diethyldithiocarbamate
DDE	-	bis-(chlorophenyl)-1,1-dichloroethene (F.W. = 318)
dl	-	detection limit
DNA	-	deoxyribonucleic acid
DWB	-	dry weight basis
HCB	-	Hexachlorobenzene (F.W. = 284.78)
p,p'-DDD	-	2,2-Bis(p-chlorophenyl)-1,1-dichloroethane (F.W. = 320)
p,p'-DDE	-	2,2-Bis (p-chlorophenyl)-1,1-dichloroethylene (F.W. = 318)
o,p'-DDT	-	1-(o-chlorophenyl)-1-(p-chlorophenyl)-2,2,2-trichloroethane (F.W. = 354.5)
p,p'-DDT	-	1,1-Bis-(p-chlorophenyl)-2,2,2-trichloroethane (F.W. = 354.5)
DOC	-	dissolved organic carbon
DOE	-	Department of the Environment
ECGC	-	electron capture gas chromatography
EDTA	-	ethylene diamine tetra acetate
EEP	-	electric eye photometer
evap	-	evaporation
FAAS	-	flame atomic absorption spectrophotometry
Fe	-	iron (AW = 55.85)
$Fe(OH)_3$	-	iron (III) hydroxide
FIDGC	-	flame ionization detector gas chromatography
FS	-	fluorescence spectroscopy

GC	-	Gas chromatography
GCMS	-	gas chromatography - mass spectrometry
GFAAS	-	Graphite furnace atomic absorption spectrophotometry
GLC	-	gas liquid chromatography
^3H	-	tritium
HC	-	hydrocarbons
HCl	-	hydrochloric acid
HCB	-	hexachlorobenzene
$HClO_4$	-	perchloric acid
He	-	helium
δ^3 He (o/oo)	-	$^3H/^4$ He isotopic ratio
HF	-	hydrofluoric acid
Hg	-	mercury (AW = 200.59)
HNO_3	-	nitric acid
H_2SO_4	-	sulphuric acid
HPLC	-	high performance liquid chromatography
HTGC	-	high temperature gas chromatography
HEC	-	hexane extractable compounds
K	-	potassium (AW = 39.10)
K.B.	-	Ken Bruland Sediment Sampler
LWB	-	lipid weight basis
Me-Hg	-	methyl mercury
Mg	-	magnesium (AW = 24.31)
$MgCO_3$	-	magnesium carbonate
Mn	-	manganese (AW = 54.94)
MS	-	mass spectrometry
MIBK	-	methyl isobutyl ketone
N	-	nitrogen (AW = 14.01)
$NaBH_4$	-	sodium borohydride
N/A	-	not applicable
NC	-	not computable

Ne	-	neon
NH_3	-	ammonia
NO_2	-	nitrite nitrogen
NO_3	-	nitrate nitrogen
Na	-	sodium (AW = 22.99)
NBS	-	National Bureau of Standards (U.S.A.)
Ni	-	nickel (AW = 58.71)
NS	-	not specified
$\delta^{18}O$ (o/oo)	-	$^{18}O/^{16}O$ isotopic ratio
O_2	-	dissolved oxygen
OC	-	organic carbon
ON	-	organic nitrogen
PCB	-	polychlorinated biphenyls
POC	-	particulate organic carbon
POH	-	particulate organic hydrogen
PON	-	particulate organic nitrogen
PE	-	polyethylene
PHAEO	-	phaeopigments
PO_4	-	phosphate - phosphorus
Pb	-	lead (AW = 207.19)
pH	-	-log H^+
PVC	-	polyvinyl chloride
P	-	total phosphorus
Rb	-	rubidium (AW = 85.47)
RNA	-	ribonucleic acid
S	-	salinity
SCUBA	-	self-contained underwater breathing apparatus
SD	-	standard deviation
Se	-	selenium (AW = 78.96)
S & P	-	Strickland and Parsons
SF	-	spectrofluorometry
SFC	-	surface

S/S	-	stainless steel
SiO_3	-	silicate
SMOW	-	standard mean ocean water
SPM	-	suspended particulate matter
SRP	-	soluble reactive phosphorous
T	-	temperature
TC	-	total carbon
TDN	-	total dissolved nitrogen
TDP	-	total dissolved phosphate
TDS	-	total dissolved solids
TOC	-	total organic carbon
TIC	-	total inorganic carbon
TLC	-	thin layer chromatography
TSPM	-	total suspended particulate material
TU	-	tritium units (=1 $^3H/10^{18}$ H)
UV	-	ultraviolet
V	-	vanadium (AW = 50.94)
V_2O_5	-	vanadium pentoxide
VS	-	visible spectroscopy
WT	-	Winkler titration
WWB	-	wet weight basis
Zn	-	zinc (AW = 65.37)

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
28-0001	GODTHAAB	Aug. 20	Lancaster Sound	Water Column: O_2	T, S, BT		
50-0002	U.S.S. EDISTO	Aug. 17	Barrow Strait, Lancaster Sound	Water Column: O_2	T, S	Secchi depth	
52-0003	U.S.S. EDISTO	Aug. 8-13	Viscount Melville Sound	Water Column: O_2	T, S	Secchi depth	
53-0001	U.S.S. BURTON ISLAND	Aug. 14-Sept. 1	Prince of Wales Strait	Water Column: O_2, PO_4, SiO_3 Bottom Sediment: 72 samples collected (snapper - Phleger)	T, S, BT, currents	Plankton hauls	
54-0002	U.S.S. BURTON ISLAND	Aug. 11-Sept. 6	Viscount Melville Sound, Prince of Wales Strait	Water Column: O_2, PO_4	T, S	Secchi depth	
54-0003	U.S.S. NORTHWIND	Aug. 14-Sept. 6	M'Clure Strait, Prince of Wales Strait, Hadley Bay	Water Column: O_2, PO_4, SiO_3	T, S		

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
56-0002	ARCTIC INSTITUTE OF NORTH AMERICA (Montreal)	July 18-Aug. 28	Allen Bay	Water Column: O_2, PO_4, P, chl. a	T, S, total radiation	Primary productivity, Secchi depth	
56-0003	H.M.C.S. LABRADOR	Sept.	Gulf of Boothia, Prince Regent Inlet, Lancaster Sound	Water Column: O_2, PO_4	T, S, ice distribution and thickness, sediment constituents and distribution		
57-0003	H.M.C.S. LABRADOR	Aug. 20-Sept. 24	Barrow Strait, Prince Regent Inlet, Lancaster Sound	Water Column: O_2, PO_4	T, S, ice distribution	Secchi depth	
60-0008	C.H.S. BAFFIN (University of Western Ontario)	1960	Lancaster Sound	Bottom Sediment: CO_2	sediment grain size, hydraulic settling velocity of fine sand, heavy mineral distributions		

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
61-0004	C.C.G.S. LABRADOR	Aug. 28-Sept. 14	Lancaster Sound	Water Column: O_2	T, S		
62-0005A	FISHERIES RESEARCH BOARD OF CANADA (Arctic unit, Montreal)	June 28-Aug. 14	Allen Bay	Water Column: O_2	T, S	Plankton hauls	
62-0005B	FISHERIES RESEARCH BOARD OF CANADA (Arctic unit, Montreal)	June 23-Aug. 13	Creswell Bay	Water Column: O_2	T, S	Plankton hauls	
62-0005C	FISHERIES RESEARCH BOARD OF CANADA (Arctic unit, Montreal)	Sept. 7	Cambridge Bay	Water Column: O_2	T, S	Plankton hauls	
62-0006	C.C.G.S. JOHN A. MACDONALD	Aug. 7-Sept. 6	Barrow Strait, Franklin Strait, M'Clintock Channel	Water Column: O_2	T, S		
62-0009	FISHERIES RESEARCH BOARD OF CANADA (Arctic Biological Stn., Quebec)	Aug. 27	Cambridge Bay	Water Column: Starch grains			

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
65-0002	M.V. SALVELINUS	July 29-Sept. 5	Dease Strait	Water Column: O_2	T, S		
66-0004	U.S.S. EDISTO	Aug. 6-Aug. 7	Lancaster Sound	Water Column: O_2	T, S		
66-0005	M.V. SALVELINUS	Aug. 2-Aug. 24	Dease Strait	Water Column: O_2	T, S		
67-0001A	M.V. SALVELINUS	Aug. 17-Sept. 7	Dease Strait	Water Column: O_2, PO_4, NO_3	T, S		
67-0001B	ICE	July 2-July 29	Dease Strait	Water Column: O_2, PO_4, NO_3	T, S		
68-0001	C.C.G.S. LABRADOR (Fisheries Research Board, Biological Stn., B.C.)	Aug. 24-Aug. 31	Lancaster Sound, Viscount Melville Sound, M'Clure Strait	Water Column: O_2	T, S, BT	Benthos: species composition, biological bottom samples	
70-0010	CANADIAN WILDLIFE SERVICE	May	Lancaster Sound	Biota: (seals) PCB; p,p'-DDE; p,p'-DDT			see 71-0009 and 72-0016

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
71-0009	CANADIAN WILDLIFE SERVICE	Nov., Dec.	Spence Bay	Biota: (polar bears) PCB, p,p'-DDE			see 70-0010 and 72-0016
71-0016	FISHERIES AND MARINE SERVICE BIOLOGICAL STATION, D.O.E. (St. Andrews, N.B.)	Sept. 1971-Aug. 1972	Resolute Bay	Water Column: chl. a, TDN, SRP, P	Light, ice thickness	Phytoplanktonic and benthic photosynthesis, benthic respiration	see 73-0010
72-0011	C.C.G.S. LOUIS ST. LAURENT (Fisheries and Marine Service, Marine Sciences Directorate, Pacific Region)	Sept. 27-Sept. 30	Barrow Strait	Water Column: O_2, Si, PO_4, NO_3 Bottom Sediment: Hg	T, S, BT, currents, light transmission	Zooplankton: Species composition	
72-0016	CANADIAN WILDLIFE SERVICE	June	Resolute Bay	Biota: (polar bears and arctic chars) PCB; p,p'-DDE; p,p'-DDT, o, p'DDT			see 70-0010 and 71-0009
72-0017	C.C.G.S. LABRADOR (Atlantic Oceanographic Laboratory, D.O.E., B.I.O.)	Aug. 20	Barrow Strait	Water Column: tar, HEC, BEC	T		see 73-0009A, 73-0011, 74-0013, 74-0024

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
73-0005	C.C.G.S. LOUIS ST. LAURENT	Aug. 6	Lancaster Sound	Water Column: PO_4, NO_2, NO_3, SiO_3	T, S		
73-0006	INSTITUTE OF OCEAN SCIENCES (Patricia Bay)	Apr. 20-21	Barrow Strait	Water Column: SiO_3, NO_3, PO_4	CTD, T, S, currents		
73-0009A	C.S.S. BAFFIN (Atlantic Oceanographic Laboratory, D.O.E., B.I.O.)	Aug. 7, Sept. 19	Lancaster Sound	Water Column: tar, HEC, BEC	T		see 72-0017, 73-0011, 74-0013A, 74-0024
73-0009B	C.S.S. BAFFIN (Geological Survey)	Aug.-Sept.	Maxwell Bay Lancaster Sound	Bottom Sediment: $CaCO_3$	sediment types and grain size		
73-0010	FISHERIES AND MARINE SERVICE BIOLOGICAL STN., D.O.E. (St. Andrews, N.B.)	May 8, 13	Resolute Bay	Ice Core: chl. a	sub-ice light	epontic photosynthesis	see 71-0016
73-0011	PROTECTEUR (Atlantic Oceanographic Laboratory, D.O.E., B.I.O.)	Aug. 15, 18	Lancaster Sound	Water Column: Tar, HEC, BEC			see 72-0017, 73-009A, 74-0013A, 74-0024

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
74-0013A	C.S.S. HUDSON (Atlantic Oceanographic Laboratory, D.O.E., B.I.O.)	Aug. 15-30	Lancaster Sound	Water Column: Tar, HEC, BEC	T		see 72-0017, 73-0009A, 73-0011, 74-0024
74-0013B	C.S.S. HUDSON (Geological Survey, Atlantic Geoscience Centre, B.I.O.)	Aug. 20-31	Lancaster Sound, Barrow Strait	Bottom Sediment: $CaCO_3$	sediment types and grain size		
74-0013C	C.S.S. HUDSON (Marine Sciences Centre, McGill University)	Aug. 27-Sept. 1	Barrow Strait Peel Sound	Water Column: PO_4, NO_3, SiO_3, chl. a	T, S	Plankton hauls Zooplankton and Benthos: Species composition and numerical abundance	see 74-0014, 74-0014B; research continued in 1975, 1977 (see 75-0013, 77-0015
74-0014A	C.S.S. HUDSON (Marine Sciences Centre, McGill University)	May 7	Barrow Strait	Water Column: chl. a, PO_4, NO_3 Ice Core: chl. a, chl. b, chl. c, phaeo., PO_4, NO_3	T, S	Phytoplankton: Distribution and concentration Zooplankton and Benthos: Species composition and numerical abundance	see 74-0013C and 74-0014B; research continued in 1975, 1977 (see 75-0013, 77-0015)

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
74-0014B	C.S.S. HUDSON (Marine Sciences Centre, McGill University)	Aug. 14-27	Cunningham Inlet	Water Column: **chl. a, PO_4**	T, S	Phytoplankton distribution Zooplankton and Benthos: Species composition and numerical abundance	see **74-0013C, 74-0014A;** research continued in 1975, 1977 (see **75-0013, 77-0015)**
74-0015	B.C. RESEARCH (for Strathcona Mineral Services Ltd.)	Aug. 8-24	Strathcona Sound	Water Column: **O_2, pH, Zn, Pb, As, Cd, Cu, Fe, Ni** Bottom Sediment: **Zn, Pb, As, Cd, Fe, Ni**	T, S, C, currents, tides, wind, ice conditions	Seabirds, Fish, Benthos and Plankton: Species composition and numerical abundance	Baseline survey before the operation of a zinc-lead mine. Study includes heavy metal levels in streams and lakes connected to the sound.
				Biota: (Sculpins, arctic char, greenland shark, seaweed, shrimps and plankton) **Zn, Pb, As, Cd, Cu, Fe, Ni**		Secchi depth	see **75-0031B**

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
74-0023	MARINE SCIENCES CENTRE (McGill University)	May	Barrow Strait	Ice Core: NO_3, chl. a, phaeo., PO_4, SiO_3	S, ice thickness snow cover	Diatoms: Species composition and numerical abundance	
74-0024	C.S.S. BAFFIN (Atlantic Oceanographic Laboratory, D.O.E., B.I.O.)	Aug. 31, Sept. 15	Barrow Strait, Lancaster Sound	Water Column: Tar, HEC, BEC			see 72-0017, 73-0009A, 73-0011, 74-0013A
74-0026	DEPT. OF FISHERIES AND OCEANS, WESTERN REGION	Sept.	Strathcona Sound	Water Column: Pb, Zn, Cd, Cu Bottom Sediment: Pb, Zn, Cd, As, Hg, Cu, Fe			The study includes the water quality of Twin Lakes Creek. See 75-0030, 76-0012, 79-0024
75-0013	LGL Ltd. (for Polar Gas Project)	Aug. 2-25	Creswell Bay (Somerset Island), Assistance Bay (Cornwallis Island)	Water Column: NO_3, P, SiO_3, chl. a, phaeo.	T, S, bathymetry	Fish, Plankton, Macrophytes and Benthos: Species composition, numerical abundance and distribution Fish: life history	continuation of the Polar Gas marine research in 1974. See 74-0013C, 74-0014A, 74-0014B, 77-0015

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
75-0029	C.C.G.S. LABRADOR C.C.G.S. D'IBERVILLE (Terrain Sciences Division)	Sept. 4-29	Viscount Melville Sound, Strathcona Sound	Bottom Sediment: **$CaCO_3$, Pb, Zn, Cu, Ni, Cd, Fe, As, Co, Mn, Cr, Ag, Hg, ON**	Sediment grain size and types, mineral content		
75-0030	DEPT. OF FISHERIES AND OCEANS, WESTERN REGION	Aug.-Sept.	Strathcona Sound	Bottom Sediment **Pb, Zn, Cu, Ni, Cd, Fe, As, Co, Mn, Cr, Hg** Biota: (Bivalve molluscs and gastropods) **Pb, Zn, Cd, As, Hg, Fe, Cu**			The study includes the water quality of Twin Lakes Creek. See **74-0026, 76-0012, 79-0024**
75-0031A	B.C. RESEARCH (for Strathcona Mineral Services Ltd.)	March	Strathcona Sound	Water Column: **pH**	T, S, C, currents		See **74-0015**

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
75-0031B	B.C. RESEARCH (for Strathcona Mineral Services Ltd.)	June, Aug.	Strathcona Sound	Water Column: **O_2, pH, SPM**	S		See **74-0015** (Walker, E.R., 1977); study includes heavy metal determinations in nearby lakes and streams
				Biota: (Arctic Cod, zooplankton) **As, Cd, Cu, Fe, Zn**			(Bohn and McElroy, 1976)
				(fucoid algae, sea urchins) **As, Cd, Cu, Fe, Zn, Pb**			(Bohn, A., 1979)
75-0033	ARCTIC BIOLOGICAL STATION, D.O.E.	1975	Aston Bay (Somerset Island)	Biota: (Ringed seals) **Hg, Se**			See **76-0022**
76-0007	DEFENCE RESEARCH ESTABLISHMENT PACIFIC (Victoria)	May 21	Fury and Hecla Strait	Water Column: **O_2**	CTD, tide levels, currents, ice thickness, snow cover		

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
76-0008	LGL LTD., M.V. THETA (for Norlands Petroleum Ltd.)	July 22-Sept. 13	Lancaster Sound	Water Column: O_2, chl. a, phaeo., tar	T, S, wave height subsurface illuminance	Fish, Phytoplankton and Zooplankton: species composition and numerical abundance	Three stations (CW,EM,NB) were sampled again for chl. a in 1978; See **78-0022**
76-0009	TERRAIN SCIENCES DIVISION	Early July -Aug. 29	Cunningham Inlet	Water Column: SPM	Bathymetry, tides, CTD, ice conditions, sediment composition and distribution		
76-0010	LGL LTD. (for Polar Gas Project)	July 5	Resolute Passage	Water Column: NO_3, P, SiO_3, chl. a	Ice conditions, currents, T, S	Fish, Phyto- and Zooplankton, Benthos: species composition, numerical abundance, distribution	
76-0011A	C.S.S. HUDSON (Atlantic Geoscience Centre, B.I.O.)	Aug. 16-18	Lancaster Sound	Water Column: O_2, $\delta^{18}O$	T, S		Nutrients were measured but unreliable due to freezer failure

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
76-0011B	C.S.S. HUDSON (Terrain Sciences Division, Ottawa)	Sept. 1	Strathcona Sound	Bottom Sediment: **Pb, Cd, Cu, Ni, Co, Ag, ON, N, OC**			
76-0012	DEPT. OF FISHERIES AND OCEANS, WESTERN REGION	May, Aug.	Arctic Bay, Strathcona Sound	Bottom Sediment: **Pb, Zn, Cd, Hg, Mn, Cu, Fe** Biota: (Seaweeds, sea urchins) **Pb, Zn, Cd, As, Se, Hg**			The study includes the water quality of Twin Lakes Creek; See **74-0026, 75-0030, 79-0024**
76-0021	LGL LTD. (for Norlands Petroleums Ltd.)	July, Aug.	Lancaster Sound	Biota: (Seabirds) **As, Cu, Zn, Cd, Cr, V, Hg, Pb, DDE, p,p'-DDT, p,p'-DDD, o,p'-DDT, HCB, PCB**			The study was to meet one of the requirements for drilling an offshore exploration well in the Sound
76-0022	ARCTIC BIOLOGICAL STATION, D.O.E.	1976	Barrow Strait	Biota: (Seals) **Hg, Me-Hg, Se**			See **75-0033**

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
77-0014	C.S.S. HUDSON (Chemical Oceanography Division, A.O.L., B.I.O.)	Sept. 8-11	Lancaster Sound	Water Column:	T, S, light intensity	primary productivity	(AOL, cruise 77-0024)
				CH_4, O_2, oil, alk_t, CO_3,			(AOL, Physical Chemistry Data Listing)
				SiO_3, PO_4, NO_3, NH_3			(AOL, Nutrient Chemistry Data Listing)
				POC, POH, PON			(AOL, Organic Chemistry Data Listing)
				$\delta^{18}O$, $\delta^{13}C$			(AOL, Isotope Chemistry Data Listing)
				$\delta^{3}He$, He, Ne, ^{3}H			(Top et al., 1980)
				Mn, Fe, Ni, Cu, Cd			(Campbell and Yeats, 1982)
				chl. a			(Irwin et al., 1978)
				Bottom Sediment: oil			(Levy, 1979)

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
77-0015A	LGL LTD. (for Polar Gas Project)	May 23-27	Brentford Bay	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, chl. a, Σchl.	T, S, ice conditions	Under-ice Flora and Fauna, Phyto- and Zooplankton, Benthos, Marine Fish, Birds and Mammals: species composition and numerical abundance	Continuation of the POLAR GAS marine research in 1974 and 1975; See 74-0013C, 74-0014A,B 75-0013
77-0015B	LGL LTD. (for Polar Gas Project)	Sept. 2	Brentford Bay	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, chl. a	T, S	Phyto- and Zooplankton, Benthos, Marine Fish, Birds and Mammals: Species composition and numerical abundance	continuation of the POLAR GAS marine research in 1974 and 1975; See 74-0013C, 74-0014 A,B, 75-0013
77-0016A	LGL LTD. (for Petro-Canada, "The Arctic Pilot Project")	June 9-14	Bridport Inlet	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, O_2, chl. a	T, S, ice conditions	Ice Biota, Phyto- and Zooplankton, Benthos and Marine Fish: Species composition and numerical abundance	

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
77-0016B	LGL LTD. (for Petro-Canada, 'The Arctic Pilot Project')	Aug. 5-28	Bridport Inlet	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, O_2, chl. a	T, S, currents	Phyto- and Zoo-plankton, Benthos and Marine Fish: Species composition and numerical abundance	
78-0006	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES, (Sidney, B.C.)	Aug. 22	Bridport Inlet	Water Column: O_2	CTD, tide gauges		See 79-0014, 80-0009
78-0020	C.S.S. HUDSON (Chemical Oceanography Division, A.O.L., B.I.O.)	Sept. 10, 11	Lancaster Sound	Water Column: O_2 chl. a, C, N, RNA, DNA, ATP, protein, PO_4, NO_2, SiO_3, NH_3, oil, CH_4	T, S, irradiance	productivity, Secchi	(B.I.O., Chemical Oceanography Division Location File) (Irwin et al., 1980) (oil and methane data were confidential at press time)

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
78-0021	MV GULF STAR (Atlantic Geoscience Centre, DEMR)	Aug. 17-Sept. 21	Lancaster Sound	Water Column: SPM	Bathymetry, sediment grain size and composition	Benthos: Species composition and numerical abundance	Under the Eastern Arctic Marine Environmental Study (EAMES) program, DIAND, See **78-0022**
78-0022A	MV THERON MV GULF STAR (LGL Ltd.)	July 28-Aug. 5	Lancaster Sound	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, chl. a, NO_3	T, S	Plankton and Marine Fish: Species composition, numerical abundance and distribution	Part of the Eastern Arctic Marine Environment Study (EAMES) program, See **78-0021.** One station (EM) was sampled for chl. a in 1976 and in the present study, see **76-0008**
78-0022B	MV THERON MV GULF STAR (LGL Ltd.)	Aug. 19-Sept. 8	Lancaster Sound	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, chl. a, NO_3	T, S	Plankton and Marine Fish: Species composition, numerical abundance and distribution	Part of the EAMES study program, see **78-0021.** Three stations (CW, EM, NB) were sampled for chl. a in 1976 and in the present study, see **76-0008**

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
78-0022C	MV THERON MV GULF STAR (LGL Ltd.)	Sept. 19-22	Lancaster Sound	Water Column: $NO_3 + NO_2$, PO_4, SiO_3, chl. a,	T, S	Plankton and Marine Fish: Species composition, numerical abundance and distribution	Part of the EAMES study program, see **78-0021**. Two stations (CW, NB) were sampled for chl. a in 1976 and in the present study, see **76-0008**
79-0014	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES (Sidney, B.C.)	March 13, 20	Bridport Inlet	Water Column: O_2	CTD, tide gauges, currents		See **78-0006**, **80-0009**
79-0024	DEPT. OF FISHERIES AND OCEANS, WESTERN REGION	Aug.	Strathcona Sound	Bottom Sediment: **Pb, Zn, Cd, As, Hg, Mn, Fe** Biota: (Seaweeds, sea urchins, molluscs, sea star, sea cucumber, fish) **Pb, Zn, Cd, As, Se, Hg**			See **74-0026**, **75-0030**, **76-0012**

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
80-0007	C.S.S. HUDSON (Marine Ecology Laboratory, B.I.O.)	Aug. 5-23	Lancaster Sound	Water Column: O_2, SiO_3, PO_4, NO_3, SPM	CTD, light, sediment grain size	Primary productivity, seabird survey. Fish: Levels of anti-freeze protein and hepatic mixed function oxidase enzymes Zooplankton: Species composition, numerical abundance, grazing and metabolic rates, digestive enzyme level	
80-0009	FROZEN SEA RESEARCH GROUP, INSTITUTE OF OCEAN SCIENCES (Sidney, B.C.)	April 6-9	Bridport Inlet	Water Column: O_2	CTD, tide gauges, currents		See 78-0006, 79-0014

DATA SET I.D.	COLLECTING AGENCY, SHIP	DATES OF MEASUREMENT	AREA	CHEMICAL QUANTITIES MEASURED OR SAMPLED	CONCURRENT PHYSICAL MEASUREMENTS	CONCURRENT BIOLOGICAL MEASUREMENTS	REMARKS
80-0018	Medical Services Branch	1980	North Baffin Island, Cornwallis Island	Biota: (polar bear hair) Hg			
81-0007	RESEARCH AND DEVELOPMENT DIVISION, OSS CENTRAL REGION (Burlington, Ontario)	March 31-April 19	Barrow Strait	Water Column: PO_4, NO_3 + NO_2, SiO_3	CTD, currents, tide gauges	Zooplankton hauls, ice fauna	No chemical values were published; values unreliable due to poor preservation of samples.

8. DATA INVENTORY TABLE 2.

NOTES APPLICABLE TO TABLE 2

The following notes are referred to in the remarks column of Table 2.

NOTE 1.

Delta value
The delta value (in parts per thousand) is defined as:

$$\delta Y = \left(\frac{R_x}{R_{ST}} - 1 \right) \times 1000$$

where Y = ^{13}C, ^{18}O, ^{34}S etc.

R_x = isotopic ratio of unknown (e.g. $^{18}O/^{16}O$)

R_{ST} = isotopic ratio of standard

The standard is Chicago PDB for carbon; SMOW (Standard Mean Ocean Water) for oxygen and CDT (Cañon Diablo Troilite) for sulphur.

NOTE 2.

Ratings for dissolved heavy metals and nutrients were downgraded to 0 if values reported for background conditions exceeded the concentrations listed below. These "upper limit values" are based on generally accepted maximum published values for unpolluted coastal areas.

Element	Concentration $\mu mol\ m^{-3}$
Mn	180
Fe	180
Zn	76
Cr	19
Cu	79
Pb	5
Cd	9
Ni	85
Co	85
Mo	52
Hg	0.1
As	67
	$mmol\ m^{-3}$
Si	70
NO_3-N	30
PO_4-P	3.0

A double rating score, (x,0) indicates that some (unspecified) samples may have a rating of 0 while others are of higher data qualtiy.

NOTE 3.

Silicate determined on samples having salinity values less than 27×10^{-3} that have been stored by freezing are prone to large uncertainties (see Section 5.5.3). In the inventory a value of 0 is assigned to those samples for which the above conditions prevail. A double rating of (0, x) indicates some data with a 0 rating (low salinity, stored by freezing) and others with a rating of x.

NOTE 4.

When results are quoted on a WWB and no water content is given, a 4-rating is impossible because of the large variability (perhaps ±50% or more) possible among the samples. Where no water content is given for results when wet weight basis is used, "NOTE 4" is indicated in the remarks column. A maximum rating score of 2 is assigned.

NOTE 5.

Reference materials having certified values for given constituents that are greatly different from values obtained with "unknown" samples may not be good measures of the performance of the analytical method used. As a result, data shown in this inventory were limited to a maximum rating score of 2 when the mean value of the reference material differed from the mean value of the data by an order of magnitude or more. Choice of this criterion is totally subjective.

NOTE 6.

When appropriate reference materials have been used and when these indicate analyte recoveries less than 50% or greater than 150% of the expected (certified) values, a serious problem with the analytical method is suspected. The data are downrated to a maximum score of 1.

NOTE 7.

No estimate of precision or accuracy was made for the actual data in the data set. The report indicates values for accuracy and precision that might be achievable by some under optimum conditions.

NOTE 8.

This note identifies cases where the matrix of the reference material used to validate the method and estimate accuracy is judged to be sufficiently

different from that of the sample so as to make the results obtained for the reference material irrelevant for assessing the quality of the sample data (see additional information, Section 5.1 E). In these cases the maximum rating score is 2. Examples of inappropriate use of reference materials are (1) use of National Bureau of Standards SRM 1577 (Bovine Liver), National Bureau of Standards SRM 1566 (Oyster tissue) or National Bureau of Standards RM 50 (Tuna) to validate seaweed analyses and (2) use of National Bureau of Standards SRM 1571 (Orchard Leaves) to validate seaweed, fish and mammal tissue analyses.

NOTE 9.

All or almost all of the values reported for a data set are less than the detection limit. In such cases, it is impossible to interpret any of the data. Maximum rating is 1 because with additional information some estimation of ranges may be possible. The most probable data rating for these data, however, is zero.

NOTE 10.

This note upgrades the rating score for Bedford Institute of Oceanography nutrient data from 2 to 3. This results from scrutiny of other BIO nutrient data and the authors' familiarity with the procedures, standardizations, analytical details and consistently high performance of the nutrient lab at the Bedford Institute of Oceanography. On the strength of the printed word, only a rating of 2 was given to these data. Other data sets were not investigated to the extent that the BIO nutrient data were investigated because of time and financial limitations. This was totally the judgment of the authors.

NOTE 11.

No mean values are given for pH. This is because pH is a logarithmic function and mean values would be biased to the low end of the pH range and not easily interpreted.

ADDITIONAL COMMENTS ABOUT TABLE 2.

Use of NPG

where NPG (No Position Given) is used in the remarks column it appears only on the first line of the data set but applies to all parameters of the data set unless specifically indicated otherwise.

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT Qty	MEASUREMENT Units	NO. STATIONS	NO. SAMPLES	NO. SAMPLES (C)	METHODOLOGY Collection	METHODOLOGY Storage	INFORMATION Analysis	INFORMATION Precision	INFORMATION Accuracy	MEASURED VALUES Range	MEASURED VALUES Mean	MEASURED VALUES Median	DATA RATING	REMARKS
28.0001	SEA WATER						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
30.0002	SEA WATER						[illegible]	[illegible]	[illegible]			[illegible]	[illegible]			
32.0003	SEA WATER				[illegible]	[illegible]		[illegible]			[illegible]	[illegible]	[illegible]			
33.0001	SEA WATER						[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]		
34.0002	SEA WATER			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]		
				[illegible]	[illegible]	[illegible]		[illegible]			[illegible]		[illegible]	[illegible]		
34.0003	SEA WATER				[illegible]		[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]		
		[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		
						[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	[illegible]		
36.0002	SEA WATER				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]		[illegible]
							[illegible]	[illegible]	[illegible]		[illegible]			[illegible]		[illegible]
					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]		[illegible]
		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]					
36.0003	SEA WATER				[illegible]			[illegible]	[illegible]							[illegible]
					[illegible]	[illegible]		[illegible]	[illegible]							[illegible]
37.0003	SEA WATER			[illegible]	[illegible]			[illegible]	[illegible]							[illegible]
		[illegible]							[illegible]							[illegible]
60.0008	BOTTOM SEDIMENT [illegible]						[illegible]		[illegible]		[illegible]	[illegible]	[illegible]			
61.0004	SEA WATER				[illegible]	[illegible]										
62.0003A	SEA WATER											[illegible]				
62.0003B	SEA WATER															

DATA SET NO	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES AT	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
62.0005	SEA WATER						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
62.0006	SEA WATER						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
62.0009	BIOTA	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]					
65.0002	SEA WATER	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
66.0004	SEA WATER			[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
66.0005	SEA WATER						[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
67.0001A	SEA WATER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
67.0001B	SEA WATER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
68.0001	SEA WATER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		
70.0010	BIOTA (Upper sea level)	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	S&H Note: [illegible]
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	L&H methods [illegible]
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	S&H Note: [illegible]
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	L&H methods [illegible]
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	S&H Note: [illegible]
		[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	L&H methods [illegible]
71.0009	BIOTA (polar bear)	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Main: S&H Note: [illegible]
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		Main: L&H
							[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]	Major: S&H Note:

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT Qty	MEASUREMENT Units	NO. STATIONS	NO. SAMPLES	NO. SAMPLES d.l.	METHODOLOGY Collection	METHODOLOGY Storage	INFORMATION Analysis	INFORMATION Precision	INFORMATION Accuracy	MEASURED VALUES Range	MEASURED VALUES Mean	MEASURED VALUES Median	DATA RATING	REMARKS
71-0009 (contd)							Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	muscle; W&B (Note 4)
		[illegible]	[illegible]			2	Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS	[illegible]	[illegible]	[illegible]	2	brain; W&B (Note 4)
						2	Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS	[illegible]	[illegible]	[illegible]	2	brain; L&B
							Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	muscle; W&B (Note 4)
					1		Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	muscle; L&B
71-0016	SEA ICE	[illegible]	[illegible]		NS	NS	NS	NS	NS	NS	NS	[illegible]	NS	NS	2	data presented graphically
	SEA WATER	TDN	[illegible]		1	3	NS	NS	NS	NS	NS	[illegible]	NS	NS	2	data presented graphically
		SRP	[illegible]		1	3	NS	NS	NS	NS	NS	[illegible]	NS	NS	2	data presented graphically
		[illegible]	[illegible]		1	3	NS	NS	NS	NS	NS	[illegible]	NS	NS	2	data presented graphically
72-0011	SEA WATER	[illegible]	[illegible]	7	69	69	Knudsen bottles	None; analysis in shipboard	[illegible]	NS	NS	[illegible]	[illegible]	[illegible]	2	
		[illegible]	[illegible]	6	55	51	Knudsen bottles	frozen	Strickland and Parsons (1968)	NS	NS	[illegible]	[illegible]	[illegible]	2	
		[illegible]	[illegible]	6	55	55	Knudsen bottles	frozen	Strickland and Parsons (1968)	NS	NS	[illegible]	[illegible]	[illegible]	2	
		[illegible]	[illegible]	6	55	51	Knudsen bottles	frozen	Strickland and Parsons (1968)	NS	NS	[illegible]	[illegible]	[illegible]	2	
	BOTTOM SEDIMENT (surface layer; whole sediment)	Hg	[illegible]	[illegible]	[illegible]	[illegible]	Dietz Lafond grab	NS	aqua regia (proportion HCl/HNO3 not given); digestion; CVAAS	NS	NS	[illegible]	[illegible]	[illegible]	2	W&B; Note 4
72-0016	BIOTA (polar bear muscle)	PCB	[illegible]	[illegible]	[illegible]	[illegible]	Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	W&B (Note 4); methods well documented; NPC for polar bears
		PCB	[illegible]	[illegible]	[illegible]	[illegible]	Killed by hunters	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	L&B; methods well documented
	(arctic char)	PCB	[illegible]	[illegible]	[illegible]		Hook and line	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	W&B (Note 4); methods well documented
		PCB	[illegible]	[illegible]	[illegible]		Hook and line	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	L&B; methods well documented
		[illegible]	[illegible]		[illegible]		Hook and line	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS		[illegible]		2	W&B (Note 4); methods well documented
		[illegible]	[illegible]	[illegible]	[illegible]		Hook and line	Wrapped in aluminum foil; frozen (-25°C)	Hexane extraction; ECGC	NS	NS				2	L&B; methods well documented

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES adj.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
72-0016 (cont'd)		p,p'-DDT	umol kg^{-1}	1	1	1	hook and line	wrapped in aluminum foil; frozen (-20°C)	hexane extraction; ECGC	NS	NS	-	0.034	-	2	WWB (Note 4); methods well documented
		p,p'-DDT	umol kg^{-1}	1	1	1	hook and line	wrapped in aluminum foil; frozen (-20°C)	hexane extraction; ECGC	NS	NS	-	1.77	-	2	LWB; methods well documented
		o,p'-DDT	umol kg^{-1}	1	1	1	hook and line	wrapped in aluminum foil; frozen (-20°C)	hexane extraction; ECGC	NS	NS	-	0.028	-	2	WWB (Note 4); methods well documented
		o,p'-DDT	umol kg^{-1}	1	1	1	hook and line	wrapped in aluminum foil; frozen (-20°C)	hexane extraction; ECGC	NS	NS	-	1.42	-	2	LWB; methods well documented
72-0017	SEA WATER	Tar	ug m^{-2}	2	2	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ce < 0.1	-	1	HEC + BEC detection limit approx. only; Note 9
		HEC tar	ug m^{-2}	2	2	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ce < 0.1	-	1	detection limit approx. only; Note 9
		BEC tar	ug m^{-2}	2	2	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ce < 0.1	-	1	detection limit approx. only; Note 9
73-0005	SEA WATER	PO_4	mmol m^{-3}	5	52	52	Nansen bottles	frozen	Technicon AuA	NS	NS	0.45 - 2.28	1.16	1.24	2	
		NO_2	mmol m^{-3}	5	52	38	Nansen bottles	frozen	Technicon AuA	NS	NS	0.0 - 0.9	0.30	0.30	2	
		NO_3	mmol m^{-3}	5	52	41	Nansen bottles	frozen	Technicon AuA	NS	NS	0.0 - 12.9	6.12	8.45	2	
		SiO_3	mmol m^{-3}	5	52	50	Nansen bottles	frozen	Technicon AuA	NS	NS	0.0 - 26.0	13.48	17.50	2	
73-0006	SEA WATER	SiO_3	mmol m^{-3}	1	9	9	Fjarlie bottles	NS	Strickland and Parsons (1972)	NS	NS	8.0 - 22.0	15.3	19.0	2	
		NO_3	mmol m^{-3}	1	9	9	Fjarlie bottles	NS	Technicon AuA	NS	NS	3.0 - 11.9	7.6	9.6	2	
		PO_4	mmol m^{-3}	1	9	9	Fjarlie bottles	NS	Technicon AuA	NS	NS	0.9 - 2.2	1.5	1.6	2	
73-0009A	SEA WATER	Tar	mg m^{-2}	2	2	1	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	0.00 - 0.026	0.013	0.013	2	HEC + BEC
		HEC tar	mg m^{-2}	2	2	1	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	0.00 - 0.019	0.010	0.010	2	
		BEC tar	mg m^{-2}	2	2	1	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	0.00 - 0.006	0.003	0.003	2	
73-0009B	BOTTOM SEDIMENT (surface layer; whole sediment)	$CaCO_3$	mol kg^{-1}	104	104	104	Ponar grab	NS	NS	NS	NS	2.61 - 7.99	4.56	3.96	2	Information obtained solely from unpublished original worksheets; NPG for 79 stations

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES v.i.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
73-0010	ICE CORE	chl. a	mg m^{-2}	1	15	15	SCUBA; ice corer	NS	NS	NS	NS	10.2 - 22.0	15.2	NC	2	data presented as range and mean; NPG
73-0011	SEA WATER	Tar	µg m^{-2}	3	3	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ca < 0.1	-	1	HEC + BEC detection limit approx. only; Note 9
		HEC tar	µg m^{-2}	3	3	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ca < 0.1	-	1	detection limit approx. only; Note 9
		BEC tar	µg m^{-2}	3	3	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ca < 0.1	-	1	detection limit approx. only; Note 9
74-0013A	SEA WATER	Tar	µg m^{-2}	3	3	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ca < 0.1	-	1	HEC + BEC detection limit approx. only; Note 9
		HEC tar	µg m^{-2}	3	3	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ca < 0.1	-	1	detection limit approx. only; Note 9
		BEC tar	µg m^{-2}	3	3	0	modified Neuston sampler	frozen in glass jars	manual separation; sequential extraction: CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS	-	ca < 0.1	-	1	detection limit approx. only; Note 9
74-0013B	BOTTOM SEDIMENT (whole sediment)	$CaCO_3$	mol kg^{-1}	31	31	31	piston gravity and box cores; Van Veen grab	NS	NS	NS	NS	0.59 - 7.35	3.28	3.63	2	information obtained solely from unpublished original worksheets
74-0014A	SEA WATER	chl. a	mg m^{-3}	1	3	3	Van Dorn bottles	filtered; frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	0.07 - 0.11	NC	NC	2	data presented graphically; NPG
		PO_4	mmol m^{-3}	1	3	3	Van Dorn bottles	filtered; frozen	Strickland and Parsons (1972)	NS	NS	1.0 - 1.0	NC	NC	2	data presented graphically
		NO_3	mmol m^{-3}	1	3	3	Van Dorn bottles	filtered; frozen	Strickland and Parsons (1972)	NS	NS	4.0 - 6.5	NC	NC	2	data presented graphically
	SEA ICE (ice core)	chl. a	mg m^{-2}	1	NS	NS	SIPRE ice corer	melted; filtered; frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	-	12.35	-	2	data presented as mean values
		chl. b	mg m^{-2}	1	NS	NS	SIPRE ice corer	melted; filtered; frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	-	2.48	-	2	data presented as mean values
		chl. c	mg m^{-2}	1	NS	NS	SIPRE ice corer	melted; filtered; frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	-	11.59	-	2	data presented as mean values
		phaeo.	mg m^{-2}	1	NS	NS	SIPRE ice corer	melted; filtered; frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	-	6.45	-	2	data presented as mean values
		PO_4	mmol m^{-3}	1	7	7	SIPRE ice corer	melted; filtered; preserved with $CHCl_3$; frozen	Strickland and Parsons (1972)	NS	NS	0.091 - 2.1	NC	NC	2	data presented graphically
		NO_3	mmol m^{-3}	1	7	7	SIPRE ice corer	melted; filtered; preserved with $CHCl_3$; frozen	Strickland and Parsons (1972)	NS	NS	0.50 - 1.6	NC	NC	2	data presented graphically

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES n.d.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
74-00148	SEA ICE (ice core)	chl. a	mg m^{-2}	11	NS	NS	SIPRE ice corer	melted; filtered; preserved with $CHCl_3$; frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	<1.2 - <2.0	NC	NC	1	data presented graphically; Note 9
		PO_4	mg m^{-3}	11	NS	NS	SIPRE ice corer	melted; filtered; preserved with $CHCl_3$; frozen	Strickland and Parsons (1972)	NS	NS	0.3 - 0.7	NC	NC	2	data presented graphically
74-00113	SEA WATER	O_2	mol m^{-3}	14	109	109	Kurt Gohla water samplers	none; analysis on shipboard	InterOceans System Inc. CSTD unit	NS	NS	0.061 - 0.470	0.246	0.260	2	NPG
		pH	pH units	4	16	16	Kurt Gohla water samplers	none; analysis on shipboard	pH meter with combination electrode	NS	NS	7.5 - 8.2	Note 11	7.8	2	
		Zn	mmol m^{-3}	8	31	31	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	APDC extraction; FAAS	NS	NS	0.21 - 0.64	0.32	0.34	0	Note 2
		Pb	mmol m^{-3}	8	31	0	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	APDC extraction; FAAS	NS	NS	-	< 0.02	-	0	Note 2
		As	mmol m^{-3}	8	31	24	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	$Fe(OH)_3$ coprecipitation; AgDDC extraction; colorimetry	NS	NS	<0.01 - 0.04	NC	NC	2	some values expressed as ranges
		Cd	μmol m^{-3}	8	31	0	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	APDC extraction; FAAS	NS	NS	-	< 8.9	-	1	Note 9
		Cu	mmol m^{-3}	8	31	24	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	APDC extraction; FAAS	NS	NS	<0.02 - 0.11	< 0.03	<0.02	2,0	Note 2
		Fe	mmol m^{-3}	8	31	2	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	APDC extraction; FAAS	NS	NS	<0.04 - 0.09	0.04	0.04	1	Note 9 (29 of 31 samples < d.l.)
		Ni	mmol m^{-3}	8	31	0	Kurt Gohla water samplers	in plastic bottles after filtration (0.45 μm); acidified (pH ~ 2.5) with HCl; stored outside	APDC extraction; FAAS	NS	NS	-	< 0.09	-	0	Note 2
	BOTTOM SEDIMENT (pebbles, organic debris and shells removed)	Zn	mmol kg^{-1}	14	14	14	Shipek sediment dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.06 - 2.62	1.56	1.50	2	DWB
		Pb	mmol kg^{-1}	14	14	14	Shipek sediment dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.019 - 0.093	0.045	0.038	2	DWB
		As	mmol kg^{-1}	14	14	14	Shipek sediment dredge	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	0.013 - 0.103	0.054	0.053	2	DWB
		Cd	μmol kg^{-1}	14	14	0	Shipek sediment dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	-	< 3.56	-	1	DWB; Note 9
		Cu	mmol kg^{-1}	14	14	14	Shipek sediment dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.058 - 0.439	0.319	0.338	2	DWB
		Fe	mol kg^{-1}	14	14	14	Shipek sediment dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.051 - 0.609	0.439	0.468	2	DWB
		Ni	mmol kg^{-1}	14	14	14	Shipek sediment dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.066 - 0.465	0.344	0.373	2	DWB

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES w.l.	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
76-0015 (cont'd)	BIOTA (sculpins: Myoxocephalus scorpioides, Myoxocephalus quadricornis, Myoxocephalus scorpius)	Zn	mmol kg⁻¹	1	77	77	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-1.5%	0.43 - 1.53	0.657	0.628	3	fillet - DWB; accuracy based on bovine liver reference material
				1	77	77	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-1.5%	0.73 - 2.34	1.62	1.61	3	liver - DWB; accuracy based on bovine liver reference material
		Pb	mmol kg⁻¹	1	77	0	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	±17.6%	<0.015 - 0.022	NC	NC	1	fillet - DWB; d.l. varies with sample weight; accuracy based on bovine liver reference material; Note 9
				1	77	1	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	±17.6%	<0.016 - <0.220	NC	NC	1	liver - DWB; d.l. varies with sample weight; accuracy based on bovine liver reference material; Note 9
		As	mmol kg⁻¹	1	14	14	baited hooks; gillnet	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	0.135 - 0.499	0.288	0.282	2	fillet - DWB
				1	14	14	baited hooks; gillnet	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	0.190 - 0.865	0.444	0.367	2	liver - DWB
		Cd	μmol kg⁻¹	1	77	3	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<2.8 - <18	NC	NC	1	fillet - DWB; d.l. varies with sample weight; Note 9
				1	77	71	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<7.7 - 156	NC	NC	2	liver - DWB; d.l. varies with sample weight
		Cu	mmol kg⁻¹	1	77	76	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-3.62%	<0.026 - 0.156	0.061	0.052	2	fillet - DWB; Note 5; accuracy based on bovine liver reference material
				1	77	77	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-3.62%	0.028 - 0.414	0.115	0.083	2	liver - DWB; Note 5; accuracy based on bovine liver reference material
		Fe	mmol kg⁻¹	1	77	77	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.473 - 6.210	1.130	0.897	2	fillet - DWB
				1	77	77	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.602 - 5.590	2.08	1.90	2	liver - DWB
		Ni	mmol kg⁻¹	1	77	0	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<0.027 - <0.136	NC	NC	1	fillet - DWB; d.l. varies with sample weight; Note 9
				1	77	0	baited hooks; gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<0.025 - <0.411	NC	NC	1	liver - DWB; d.l. varies with sample weight; Note 9
	(arctic char: Salvelinus alpinus)	Zn	mmol kg⁻¹	1	14	14	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-1.5%	0.210 - 0.566	0.354	0.322	3	fillet - DWB; accuracy based on bovine liver reference material
				1	14	14	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-1.5%	0.540 - 2.710	1.82	1.87	3	liver - DWB; accuracy based on bovine liver reference material

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT Qty	MEASUREMENT Units	NO. STATIONS	NO. SAMPLES	NO. SAMPLES ed.	METHODOLOGY Collection	METHODOLOGY Storage	INFORMATION Analysis	INFORMATION Precision	INFORMATION Accuracy	MEASURED VALUES Range	MEASURED VALUES Mean	MEASURED VALUES Median	DATA RATING	REMARKS
76-0015 (cont'd)		Pb	mmol kg⁻¹	1	16	16	gillnet	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	<17.6%	<0.010 - <0.019	NC	NC	1	fillet - DWB; d.l. varies with sample weight; accuracy based on bovine liver reference material; Note 9
				1	16	9	gillnet	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	<17.6%	<0.017 - <0.182	NC	NC	1	liver - DWB; d.l. varies with sample weight; accuracy based on bovine liver reference material; Note 9
		Cd	pmol kg⁻¹	1	16	3	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<2.0 - <7.2	NC	NC	1	fillet - DWB; d.l. varies with sample weight; Note 9
				1	16	1	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	2.4 - <33.6	NC	NC	1	liver - DWB; d.l. varies with sample weight; Note 9
		Cu	mmol kg⁻¹	1	16	16	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	±3.62%	0.018 - 0.039	0.030	0.032	3	fillet - DWB; Note 5; accuracy based on bovine liver reference material
				1	16	16	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	±3.62%	0.48 - 3.48	1.50	1.10	3	liver - DWB; Note 5; accuracy based on bovine liver reference material
		Fe	mmol kg⁻¹	1	16	16	gillnet	frozen in whirl bags	HNO_3 digestion; FAAS	NS	NS	0.288 - 0.614	0.432	0.420	2	fillet - DWB
				1	16	16	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	11.46 - 115.93	52.57	50.76	2	liver - DWB
		Ni	mmol kg⁻¹	1	16	2	gillnet	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<0.018 - <0.069	NC	NC	1	fillet - DWB; d.l. varies with sample weight; Note 9
				1	16	3	gillnet	frozen in whirl peg bags	HNO_3 digestion; FAAS	NS	NS	<0.031 - <0.322	NC	NC	1	liver - DWB; d.l. varies with sample weight; Note 9
	(greenland shark Somniosus microcephalus)	Zn	mmol kg⁻¹	1	1	1	commercial long line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	1.5%	-	0.11	-	3	muscle - DWB; accuracy based on bovine liver reference material
				1	2	2	commercial long line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	1.5%	0.332 - 0.858	0.595	0.595	3	liver + kidney - DWB; accuracy based on bovine liver reference material
		Pb	mmol kg⁻¹	1	1	3	commercial long line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	±17.6%	-	<0.014	-	1	muscle - DWB; accuracy based on bovine liver reference material; Note 9
				1	2	3	commercial long line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	±17.6%	<0.012 - <0.026	NC	NC	1	liver + kidney - DWB; d.l. varies with sample weight; accuracy based on bovine liver reference material; Note 9
		As	mmol kg⁻¹	1	1	1	commercial long line fishing equipment	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	-	1.36	-	2	muscle - DWB
				1	2	2	commercial long line fishing equipment	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	0.410 - 1.510	0.960	0.960	2	liver + kidney - DWB

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES n.d.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
79-0815 (cont'd)		Cd	mmol kg^{-1}	1	1	0	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	-	< 0.003	-	1	muscle - DWB; Note 9
				1	2	2	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.083 - 0.206	0.145	0.145	2	liver + kidney - DWB
		Cu	mmol kg^{-1}	1	1	1	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	- 3.62%	-	0.035	-	2	muscle - DWB; accuracy based on bovine liver reference material
				1	2	2	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	- 3.62%	0.080 - 0.194	0.137	0.137	2	liver + kidney - DWB; accuracy based on bovine liver reference material
		Fe	mmol kg^{-1}	1	1	1	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	-	0.16	-	2	muscle - DWB
				1	2	2	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.741 - 6.890	3.820	3.820	2	liver + kidney - DWB
		Ni	mmol kg^{-1}	1	1	1	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	-	0.026	-	2	muscle - DWB
				1	2	2	commercial long-line fishing equipment	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.020 - 0.046	0.033	0.033	2	liver + kidney - DWB
	(seaweeds: Fucus sp. Agarum sp. Laminaria sp.)	Zn	mmol kg^{-1}	4	6	6	scraper/skid type net dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.741 - 5.910	2.020	1.410	2	DWB
		Pb	mmol kg^{-1}	4	6	2	scraper/skid type net dredge	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	NS	<0.020 - 0.171	0.046	0.020	2	DWB
		As	mmol kg^{-1}	4	6	6	scraper/skid type net dredge	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	0.212 - 0.619	0.383	0.349	2	DWB
		Cd	µmol kg^{-1}	4	6	6	scraper/skid type net dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	4 - 13	7	5	2	DWB
		Cu	mmol kg^{-1}	4	6	4	scraper/skid type net dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.057 - 0.098	0.083	0.090	2	DWB
		Fe	mmol kg^{-1}	4	6	6	scraper/skid type net dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	25.8 - 48.9	40.7	45.3	2	DWB
		Ni	mmol kg^{-1}	4	6	6	scraper/skid type net dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.061 - 0.089	0.073	0.072	2	DWB
	(shrimp - whole body analysis: Pandalus borealis, Chionoecetes sp.)	Zn	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.882 - 1.060	0.980	1.001	2	DWB
		Pb	mmol kg^{-1}	1	1	0	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	NS	<0.038 - <0.076	NC	NC	1	DWB; d.l. varies with sample weight; Note 9
		As	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in whirl pak bags	dry ashing; AgDDC extraction; colorimetry	NS	NS	0.525 - 0.775	0.617	0.548	2	DWB
		Cd	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.013 - 0.031	0.025	0.030	2	DWB
		Cu	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	0.713 - 1.000	0.818	0.740	2	DWB
		Fe	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in shirl pak bags	HNO_3 digestion; FAAS	NS	NS	4.37 - 8.26	6.91	8.091	2	DWB
		Ni	mmol kg^{-1}	1	1	2	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	<0.078 - 0.13	0.099	0.099	2	DWB
	(plankton)	Zn	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	-	1.37	-	2	DWB
		Pb	mmol kg^{-1}	1	1	1	plankton net; (mesh 243 µm)	frozen in whirl pak bags	HNO_3 digestion; GFAAS	NS	NS	-	0.030	-	2	DWB

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT Qty	MEASUREMENT Units	NO. STATIONS	NO. SAMPLES	NO. SAMPLES ed.	METHODOLOGY Collection	METHODOLOGY Storage	INFORMATION Analysis	Precision	Accuracy	MEASURED VALUES Range	MEASURED VALUES Mean	MEASURED VALUES Median	DATA RATING	REMARKS
76-0015 (cont'd)		As	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	plankton net, mesh: 243 μm	frozen in white poly bags	dry ashing; AgDDC extraction; colorimetry	NS	NS		0.083	-	2	D&B
		Cd	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	plankton net, mesh: 243 μm	frozen in white poly bags	HNO_3 digestion; FAAS	NS	NS		0.028	-	2	D&B
		Cu	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	plankton net mesh: 6	frozen in white poly bags	HNO_3 digestion; FAAS	NS	NS		0.13	-	2	D&B
		Fe	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	plankton net mesh: 6	frozen in white poly bags	HNO_3 digestion; FAAS	NS	NS		5.16	-	2	D&B
		Ni	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	plankton net mesh: 6	frozen in white poly bags	HNO_3 digestion; FAAS	NS	NS		0.11	-	2	D&B
76-0023	SEA ICE (ice core)	NO_3	mmol m⁻³	[illegible]	[illegible]	[illegible]	SIPRE ice corer	frozen in opaque plastic bottles	spectrophotometry; Strickland and Parsons (1968)	NS	NS	0.49 - 1.88	0.98	0.86	2	
		chl a	mg m⁻³	[illegible]	[illegible]	[illegible]	SIPRE ice corer	ice melted; $MgCO_3$ added, filtered (0.45 μm); filters frozen in dark	FS	NS	NS	0.04 - 60.31	8.82	0.16	2	
		phaeo	mg m⁻³	[illegible]	[illegible]	[illegible]	SIPRE ice corer	ice melted; $MgCO_3$ added, filtered (0.45 μm); filters frozen in dark	FS	NS	NS	0.02 - 31.90	4.61	0.09	2	
76-0026	SEA WATER (surface layer)	Tar	μg m⁻²	2	2	[illegible]	modified Newston sampler	frozen in glass jars	manual separation; sequential extraction; CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS		i.e. < 0.1		2	HEC + REC
		HEC tar	μg m⁻²	2	2	[illegible]	modified Newston sampler	frozen in glass jars	manual separation; sequential extraction; CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS		i.e. < 0.1		2	
		REC tar	μg m⁻²	2	2	[illegible]	modified Newston sampler	frozen in glass jars	manual separation; sequential extraction; CCl_4 + evap/n-hexane + evap/benzene + evap; gravimetry	NS	NS		i.e. < 0.1		2	
76-0026	SEA WATER	Pb	nmol m⁻³	NS	NS	NS	NS	NS	NS	NS	NS	NS	9.7	NI	0	data presented as mean values; NPL; Note 2
	(dissolved)	Zn	nmol m⁻³	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.595	NI	0	data presented as mean values; Note 2
		Cd	nmol m⁻³	NS	NS	NS	NS	NS	NS	NS	NS	NS	< 2	NI	1	data presented as mean values; Note 9
		Cu	nmol m⁻³	NS	NS	NS	NS	NS	NS	NS	NS	NS	0.016	NI	2	data presented as mean values
	BOTTOM SEDIMENT (<180 μm fraction)	Pb	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	Eckman dredge	frozen in white poly bags	freeze-dried; HNO_3; HF; $HClO_4$ digestion; MIBK extraction of digest; FAAS	NS	NS		0.97		2	D&B
		Zn	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	Eckman dredge	frozen in white poly bags	freeze-dried; HNO_3; HF; $HClO_4$ digestion; FAAS	NS	NS		2.37	-	2	D&B
		Cd	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	Eckman dredge	frozen in white poly bags	freeze-dried; HNO_3; HF; $HClO_4$ digestion; FAAS	NS	NS		0.003	-	2	D&B
		As	nmol kg⁻¹	[illegible]	[illegible]	[illegible]	Eckman dredge	frozen in white poly bags	freeze-dried; HNO_3; HF; $HClO_4$ digestion; FAAS	NS	NS		0.05	-	2	D&B

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ND	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
76-0026 (cont'd)		Hg	µmol kg⁻¹	1	1	1	Ekman dredge	frozen in shrink pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS		0.5	-	2	DWR
		Cu	mmol kg⁻¹	1	1	1	Ekman dredge	frozen in shrink pak bags	freeze-dried; HNO_3; $HF/HClO_4$ digestion; FAAS	NS	NS		0.19		2	DWR
		Fe	mol kg⁻¹	1	1	1	Ekman dredge	frozen in shrink pak bags	freeze-dried; HNO_3; $HF/HClO_4$ digestion; FAAS	NS	NS		0.32	-	2	DWR
75-0013	SEA WATER	NO_3	mmol m⁻³	7	17	16	Niskin bottles	filtered; HCl added; frozen	Strickland and Parsons (1972)	NS	NS (Note 7)	0.03	4.07	0.60	0.20	2	NPG
		PO_4	mmol m⁻³	7	17	17	Niskin bottles	filtered; HCl added; frozen	Strickland and Parsons (1972)	NS	NS (Note 7)	0.18	1.36	0.76	0.72	2	
		SiO_2	mmol m⁻³	7	17	17	Niskin bottles	filtered; HCl added; frozen	Strickland and Parsons (1972)	NS	NS (Note 7)	0.23	6.86	1.61	1.29	2	
		chl a	mg m⁻³	7	17	17	Niskin bottles	NS	spectrophotometry Strickland and Parsons (1972)	NS	NS (Note 7)	0.05	3.05	1.13	0.77	2	
		phaeo	mg m⁻³	7	17	15	Niskin bottles	NS	spectrophotometry Strickland and Parsons (1972)	NS	NS (Note 7)	-0.01	1.45	0.36	0.14	2	
75-0029	BOTTOM SEDIMENT	Cd (as Cd(II))	mol kg⁻¹	46	97	97	Shipek grab	NS	NS	NS	NS	0.36	5.05	2.31	2.44	2	Information for this data set obtained solely from unpublished original worksheets; all values are DWR
	(<180 µm fraction)	Pb	mmol kg⁻¹	15	15	24	Shipek grab	NS	NS	NS	NS	-0.005	0.145	0.070	0.097	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	0.072	0.145	0.113	0.109	2	
	(<180 µm fraction)	Zn	mmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	0.05	1.30	0.88	0.92	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	1.22	2.07	1.56	1.53	2	
	(<180 µm fraction)	Co	mmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	0.02	5.47	0.90	0.31	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	0.99	5.71	0.59	0.55	2	
	(<180 µm fraction)	Ni	mmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	6.02	9.43	0.31	0.36	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	5.43	5.77	0.55	0.51	2	
	(<180 µm fraction)	Cd	µmol kg⁻¹	15	15	5	Shipek grab	NS	NS	NS	NS			1.78		1	Note 9
	(< 2 µm fraction)			10	10	5	Shipek grab	NS	NS	NS	NS			1.78		1	Note 9
	(<180 µm fraction)	Fe	mol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	5.14	7.30	5.39	5.39	2	
	(< 2 µm fraction)			9	9	9	Shipek grab	NS	NS	NS	NS	5.43	5.82	5.46	5.64	2	
	(<180 µm fraction)	As	mmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	5.51	5.15	5.09	5.09	2	
	(< 2 µm fraction)			26	26	26	Shipek grab	NS	NS	NS	NS	5.08	5.19	5.16	5.19	2	
	(<180 µm fraction)	Cr	mmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	5.02	5.17	5.13	5.16	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	5.17	5.24	5.19	5.20	2	
	(<180 µm fraction)	Mn	mmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	5.49	10.92	6.42	6.11	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	5.91	12.38	6.81	6.19	2	
	(<180 µm fraction)	Cr	mmol kg⁻¹	12	12	12	Shipek grab	NS	NS	NS	NS	5.12	5.56	5.37	5.38	2	
	(< 2 µm fraction)			10	10	10	Shipek grab	NS	NS	NS	NS	5.77	5.95	5.86	5.87	2	
	(<180 µm fraction)	Ag	µmol kg⁻¹	15	15		Shipek grab	NS	NS	NS	NS			2.1		1	Note 9
	(< 2 µm fraction)			10	10		Shipek grab	NS	NS	NS	NS			2.1		1	Note 9

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ed.	METHODOLOGY		INFORMATION			MEASURED VALUES				DATA RATING	REMARKS
		Qty	Unit				Collection	Storage	Analysis	Precision	Accuracy	Range		Mean	Median		
75-0029 (cont'd)	(<180 µm fraction)	Hg	µmol kg⁻¹	15	15	15	Shipek grab	NS	NS	NS	NS	1.90	16.96	6.52	3.69	2	
	(< 2 µm fraction)			27	27	27	Shipek grab	NS	NS	NS	NS	9.97	69.85	16.40	9.97	2	
	(<180 µm fraction)	Cd	mmol kg⁻¹	22	22	22	Shipek grab	NS	NS	NS	NS	0.42	3.33	1.65	1.25	2	
	(<180 µm fraction)	Cu	mmol kg⁻¹	22	22	22	Shipek grab	NS	NS	NS	NS	0.06 -	1.90	0.29	0.16	2	
75-0030	BOTTOM SEDIMENT (<180 µm fraction)	Pb	mmol kg⁻¹	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; MIBK extraction; FAAS	NS	NS	0.009	0.111	0.048	0.051	2	Information for this data set obtained partly from Fallis (1982) and partly from unpublished original work sheets; all data for sediment are DWB; NPG
	(< 2 µm fraction)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; MIBK extraction; FAAS	NS	NS	0.097	0.222	0.128	0.097	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; MIBK extraction; FAAS	NS	NS	0.009	0.097	0.053	0.048	2	
	(<180 µm fraction)	Zn	mmol kg⁻¹	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.612	3.060	1.814	1.615	2	
	(< 2 µm fraction)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	1.53	1.91	1.70	1.68	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.77	1.10	0.95	0.99	2	
	(<180 µm fraction)	Cu	mmol kg⁻¹	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.26	0.39	0.31	0.31	2	
	(< 2 µm fraction)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.55	0.63	0.57	0.55	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.26	0.39	0.28	0.26	2	
	(<180 µm fraction)	Ni	mmol kg⁻¹	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.16	0.22	0.17	0.17	2	
	(<180 µm fraction)	Cd	µmol kg⁻¹	16	16	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.89	1.78	1.02	0.89	2	
	(< 2 µm fraction)			6	6	-	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS			< 1.78	-	1	Note 9
	(whole sediment)			6	6	-	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS			< 1.78	-	1	Note 9
	(<180 µm fraction)	Fe	mmol kg⁻¹	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.36	0.48	0.41	0.41	2	
	(< 2 µm fraction)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.43	0.82	0.64	0.64	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.32 -	0.50	0.40	0.38	2	
	(<180 µm fraction)	As	mmol kg⁻¹	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.04	0.05	0.04	0.04	2	
	(< 2 µm fraction)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.12 -	0.19	0.15	0.15	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NS	NS	0.07 -	0.15	0.10	0.10	2	

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES adj.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
75-0030	(<180 μm fraction)	Co	mmol kg^{-1}	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	0.19 - 0.42	0.30	0.32	2	
	(<180 μm fraction)	Mn	mmol kg^{-1}	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	3.094 - 7.280	4.369	4.004	2	
	(< 2 μm fraction)			4	4	4	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	3.276 - 5.096	4.090	3.913	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	2.639 - 6.006	4.186	4.093	2	
	(<180 μm fraction)	Cr	mmol kg^{-1}	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	0.15 - 0.35	0.26	0.29	2	
	(<180 μm fraction)	Hg	μmol kg^{-1}	16	16	16	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	0.50 - 1.00	0.82	1.00	2	
	(< 2 μm fraction)			4	4	4	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	9.97 - 19.94	12.46	9.97	2	
	(whole sediment)			6	6	6	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/HF/$HClO_4$ digestion; FAAS	NS	NS	2.49 - 14.94	6.15	3.49	2	
	BIOTA (molluscs and gastropods (soft body parts only) Mya truncata, Astarte borealis, Modiolaria nigra, Serripes groenlandica, Cardium ciliatum, Hiatella arctica, Buccinum sp., Buccinum hydrophanum, Buccinum tinmarkianum, Sipho sp.)	Pb	μmol kg^{-1}	1	28	23	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion, ashed; filtered; DDDC extraction; FAAS	NS	11.8%	NC	2.9	NC	3	some values expressed as means
		Zn	mmol kg^{-1}	1	28	28	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion, ashed; filtered; FAAS	NS	3.9%	NC	2.82	NC	3	some values expressed as means
		Cd	μmol kg^{-1}	1	28	28	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion, ashed; filtered; FAAS	NS	0.0%	NC	71.7	NC	3	some values expressed as means
		As	mmol kg^{-1}	1	26	26	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3/H_2SO_4/$HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	27.3%	NC	0.16	NC	3	some values expressed as means
		Hg	μmol kg^{-1}	1	25	21	Ekman and Kolkwitz dredge	frozen in plastic bags	addition of V_2O_5, HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	<0.05 - 0.65	0.07	NC	2	some values expressed as means
		Fe	mmol kg^{-1}	1	28	28	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion, ashed; filtered; FAAS	NS	NS	NC	17.7	NC	2	some values expressed as means
		Cu	μmol kg^{-1}	1	28	28	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion, ashed; filtered; FAAS	NS	5.7%	NC	0.718	NC	3	some values expressed as means
75-0031A	SEA WATER	pH	pH units	3	NS	NS	in situ	N/A	N/A	NS	NS	7.8 - 7.8	Note 1)	NC	1	only range given; difficult sampling conditions - accuracy not certain (p. 118 of reference in NPG
75-0031B	SEA WATER	O_2	mol m^{-3}	6	15	15	NS	NS	NS	NS	NS	0.26 - 0.42	NC	NC	2	data presented graphically; NPG for 9 stations;
		pH	pH units	9	NS	NS	NS	NS	NS	NS	NS	7.7 - 8.1	Note 1)	NC	2	data presented as range
		SPM	g m^{-3}	1	NS	NS	NS	NS	NS	NS	NS	6 - 7	NC	NC	2	data presented as range

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES (d.l.)	METHODOLOGY		INFORMATION			MEASURED VALUES				DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range		Mean	Median		
75-0831B (con'd)	BIOTA (Arctic cod: Boreogadus saidu)	As	mmol kg^{-1}	1	84	84	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; AgDDC extraction; colorimetry	< 5%	NS	0.08	0.51	0.19	NC	3	whole fish - DWB; data presented as range and mean
				1	7	7	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; AgDDC extraction; colorimetry	< 5%	NS	0.35	1.1	0.61	NC	3	fillets - DWB; data presented as range and mean
				1	16	16	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; AgDDC extraction; colorimetry	< 5%	NS	0.41	0.11	0.08	NC	3	livers - DWB; data presented as range and mean
		Cd	µmol kg^{-1}	1	47	47	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	2.3	13	5.5	NC	2	whole fish - DWB; data presented as range and mean
				1	7	7	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS			4		1	fillets - DWB; data presented as range and mean; Note 9
				1	15	15	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	3.1	16	6.4	NC	2	livers - DWB; data presented as range and mean
		Cu	mmol kg^{-1}	1	84	84	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	3.6%	0.03	0.12	0.63	NC	3	whole fish - DWB; data presented as range and mean
				1	7	7	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	3.6%	0.03	0.09	0.06	NC	3	fillets - DWB; data presented as range and mean
				1	16	16	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	3.6%	0.027	0.083	0.038	NC	3	livers - DWB; data presented as range and mean
		Fe	mmol kg^{-1}	1	84	84	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	5.0%	0.98	4.30	2.24	NC	3	whole fish - DWB; data presented as range and mean
				1	7	7	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	5.0%	0.36	0.73	0.52	NC	3	fillets - DWB; data presented as range and mean
				1	16	16	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	5.0%	0.52	1.0	0.70	NC	3	livers - DWB; data presented as range and mean
		Zn	mmol kg^{-1}	1	84	84	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	1.0%	0.86	2.17	1.4	NC	3	whole fish - DWB; data presented as range and mean
				1	7	7	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	1.0%	0.43	0.60	0.52	NC	3	fillets - DWB; data presented as range and mean
				1	16	16	semi-balloon bottom trawl	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	1.0%	0.23	0.44	0.29	NC	3	livers - DWB; data presented as range and mean

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ±D.I.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
73-0831B (cont'd)	(Zooplankton, Copepods (whole body analysis): Lysianassidae, sagitta sp.)	As	mmol kg^{-1}	1	5	5	nylon net; PVC bucket; S/S mesh screen	frozen	HNO_3 digestion; FAAS	NS	-5% - +5%	0.075 - 0.110	0.096	NC	3	DWB; data presented as range and mean; accuracy based on NBS bovine liver reference material
		Cd	mmol kg^{-1}	1	5	5	nylon net; PVC bucket; S/S mesh screen	frozen	HNO_3 digestion; FAAS	NS	NS	0.11 - 0.062	0.031	NC	2	DWB; data presented as range and mean
		Cu	mmol kg^{-1}	1	5	5	nylon net; PVC bucket; S/S mesh screen	frozen	HNO_3 digestion; FAAS	NS	-3.6%	0.05 - 0.41	0.16	NC	3	DWB; data presented as range and mean; accuracy based on NBS bovine liver reference material
		Fe	mmol kg^{-1}	1	5	5	nylon net; PVC bucket; S/S mesh screen	frozen	HNO_3 digestion; FAAS	NS	-5.0%	0.57 - 1.6	1.1	NC	3	DWB; data presented as range and mean; accuracy based on NBS bovine liver reference material
		Zn	mmol kg^{-1}	1	5	5	nylon net; PVC bucket; S/S mesh screen	frozen	HNO_3 digestion; FAAS	NS	-1.0%	0.66 - 1.40	1.10	NC	3	DWB; data presented as range and mean; accuracy based on NBS bovine liver reference material
	(Fucoid algae: Fucus distichus)	As	mmol kg^{-1}	5	21	21	non-galvanized steel dredge	frozen in whirl pak bags	HNO_3 digestion; AgDDC extraction; colorimetry	NS	-13%	0.28 - 0.43	0.36	NC	2	DWB; data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8
		Cd	µmol kg^{-1}	5	33	33	non-galvanized steel dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	NS	6 - 16	9.9	NC	2	DWB; data presented as range and mean
		Cu	mmol kg^{-1}	5	33	33	non-galvanized steel dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-5% - +5%	0.033 - 0.074	0.047	NC	2	DWB; data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8
		Fe	mmol kg^{-1}	5	33	33	non-galvanized steel dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-5% - +5%	5.04 - 16.5	7.77	NC	2	DWB; data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8
		Pb	µmol kg^{-1}	3	10	10	non-galvanized steel dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-6.7%	2 - 6.8	4	NC	2	DWB; data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8
		Zn	mmol kg^{-1}	5	33	33	non-galvanized steel dredge	frozen in whirl pak bags	HNO_3 digestion; FAAS	NS	-5% - +5%	0.34 - 2.60	0.90	NC	2	DWB; data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ed.	METHODOLOGY		INFORMATION			MEASURED VALUES				DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range		Mean	Median		
75-0010 (cont'd)	(Purple sea urchin: Strongylocentrotus droebachiensis)	As	mmol kg⁻¹	2	13	13	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; AgDDC extraction; colorimetry	NS	.19	[illegible]	[illegible]	[illegible]	NS	2	whole - DGB, data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8
				1	3	3	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; AgDDC extraction; colorimetry	NS	.19	[illegible]	[illegible]	[illegible]	NS	2	gonads - DGB, data presented as range and mean; accuracy based on NBS orchard leaves reference material; Note 8
		Cd	μmol kg⁻¹	2	13	13	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	NS	5	6	9	NS	2	whole - DGB, data presented as range and mean
				1	3	3	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	NS	8	13	[illegible]	NS	2	gonads - DGB, data presented as range and mean
		Cu	mmol kg⁻¹	2	13	13	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	.10 - .19	[illegible]	[illegible]	[illegible]	NS	2	whole - DGB, accuracy based on NBS orchard leaves reference material; Note 8
				1	3	3	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	.10 - .19	[illegible]	[illegible]	[illegible]	NS	2	gonads - DGB, accuracy based on NBS orchard leaves reference material; Note 8
		Fe	mmol kg⁻¹	2	13	13	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	.10 - .19	[illegible]	[illegible]	[illegible]	NS	2	whole - DGB, accuracy based on NBS orchard leaves reference material; Note 8
				1	3	3	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	.10 - .19	[illegible]	[illegible]	[illegible]	NS	2	gonads - DGB, accuracy based on NBS orchard leaves reference material; Note 8
		Zn	mmol kg⁻¹	2	13	13	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	.10 - .19	[illegible]	[illegible]	[illegible]	NS	2	whole - DGB, accuracy based on NBS orchard leaves reference material; Note 8
				1	3	3	non galvanized steel dredge	frozen in whirl pak bags	HNO3 digestion; FAAS	NS	.10 - .19	[illegible]	[illegible]	[illegible]	NS	2	gonads - DGB, accuracy based on NBS orchard leaves reference material; Note 8
75-0033	BIOTA (ringed seals)	Hg	μmol kg⁻¹	1	88	88	hunted	frozen	Armstrong and Uthe (1971)	NS	NS		NS	[illegible]	NS	2	liver - BGB (Note 4); only mean value given; NPG
		Hg	μmol kg⁻¹	1	89	89	hunted	frozen	Armstrong and Uthe (1971)	NS	NS		NS	[illegible]	NS	2	muscle - BGB (Note 4); only mean value given
		Se	mmol kg⁻¹	1	12	12	hunted	frozen	Hoffman et al. (1968)	NS	NS		NS	[illegible]	NS	2	liver - DGB; only mean value given
76-0007	SEA WATER	O_2	mol m⁻³	1	10	10	Knudsen bottles	NS	NS	NS	NS	[illegible]	[illegible]	[illegible]	[illegible]	2	
76-0008	SEA WATER	O_2	mol m⁻³	7	223	223	Niskin or Nansen bottles	NS	modified W-T	NS	NS (Note 7)	[illegible]	[illegible]	[illegible]	[illegible]	2	
		Chl. a	mg m⁻³	7	126	126	Niskin or Nansen bottles	NS	spectrophotometry Strickland and Parsons (1972)	NS	NS (Note 7)	[illegible]	13.62	[illegible]	[illegible]	2	

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES w.d.	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
76-0008 (cont'd)		phaeo.	mg m^{-3}	7	120	116	Niskin or Nansen bottles	NS	spectrophotometry Strickland and Parsons (1972)	NS	NS (Note 7)	0.00 - 2.64	0.42	0.36	2	
		Tar	mg m^{-3}	7	30	0	Kahl Neuston net (160 µm mesh)	frozen in plastic bottles	benzene extraction; gravimetry	NS	NS	-	< d.l.	-	1	Note 9
76-0009	SEA WATER	SPM	g m^{-3}	8	NS	NS	horizontal alpha bottles	NS	NS	NS	NS	<1 - 24	NC	NC	2	data presented graphically; NPG
76-0010	SEA WATER	NO_3	mmol m^{-3}	1	4	4	Niskin bottle	PE bottles; filtered (0.45 µm); frozen	Strickland and Parsons (1972)	NS	NS (Note 7)	6.42 - 9.94	7.96	7.73	2	NPG
		PO_4	mmol m^{-3}	1	4	4	Niskin bottle	PE bottles; filtered (0.45 µm); frozen	Strickland and Parsons (1972)	NS	NS (Note 7)	0.86 - 1.24	0.99	0.94	2	
		SiO_3	mmol m^{-3}	1	4	4	Niskin bottle	PE bottles; filtered (0.45 µm); frozen	Strickland and Parsons (1972)	NS	NS (Note 7)	7.09 - 13.89	10.35	10.22	2	
		chl. a	mg m^{-3}	1	4	4	Niskin bottle	PE bottles; filtered (0.45 µm); frozen	spectrophotometry Strickland and Parsons (1972)	NS	NS	0.13 - 0.34	0.24	0.24	2	
76-0011A	SEA WATER	O_2	mol m^{-3}	5	49	49	Knudsen bottles	NS	NS	NS	NS	0.237 - 0.394	0.322	0.318	2	
		$\delta^{18}O$	‰	1	12	12	Niskin bottles	tightly capped glass bottles	NS	NS	NS	(18.7) - (-1.8)	NC	NC	2	data presented graphically
76-0011B	BOTTOM SEDIMENT (<180 µm fraction)	Pb	mmol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	0.15 - 0.28	0.20	0.19	2	Information for this data set obtained solely from unpublished original worksheets
		Zn	mmol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	1.29 - 1.79	1.65	1.68	2	
		Cu	mmol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	0.52 - 0.94	0.74	0.76	2	
		Ni	mmol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	0.60 - 0.94	0.80	0.82	2	
		Co	mmol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	0.29 - 0.36	0.31	0.31	2	
		Ag	mmol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	0.011 - 0.014	0.013	0.013	2	
		ON	mol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	0.043 - 0.310	0.16	0.14	2	
		OC	mol kg^{-1}	9	9	9	Shipek grab	NS	NS	NS	NS	d.l. - 3.3	NC	2.08	2	d.l. not given
76-0012	BOTTOM SEDIMENT (<180 µm fraction)	Pb	µmol kg^{-1}	1	1	0	Ekman dredge	frozen in whirl pak bags	freeze-dried HNO_3/ $HF/HClO_4$ digestion; MIBK extraction; FAAS	NS	NS	-	< 1.2	-	1	Note 9; NPG
		Zn	mmol kg^{-1}	1	1	1	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS	-	0.938	-	2	
		Cd	µmol kg^{-1}	1	1	0	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS	-	< 2.2	-	1	Note 9
		Hg	µmol kg^{-1}	1	1	1	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS	-	0.05	-	2	
		Mn	mmol kg^{-1}	1	1	1	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS	-	2.84	-	2	
		Cu	mmol kg^{-1}	1	1	1	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS	-	0.529	-	2	
		Fe	mol kg^{-1}	1	1	1	Ekman dredge	frozen in whirl pak bags	freeze-dried; HNO_3/ $HF/HClO_4$ digestion; FAAS	NS	NS	-	0.359	-	2	
	BIOTA (Seaweeds: Fucus vesiculosus Palmaria palmata Laminaria saccharina)	Pb	µmol kg^{-1}	2	25	23	Kolkwitz dredge and gillnets	frozen in plastic bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	±4.4%	NC	8.1	NC	2	some data presented as means; DWB; accuracy based on NBS orchard leaves reference material; Note 8

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ad.J.	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
76-0012 (cont'd)		Zn	mmol kg^{-1}	2	25	25	Kolkwitz dredge and gillnets	frozen in plastic bags	HNO_3 digestion; ashed; filtered; FAAS	NS	+9.0%	NC	1.16	NC	3	some data presented as means; DWB; accuracy based on NBS orchard leaves reference material; Note 8
		Cd	µmol kg^{-1}	2	25	25	Kolkwitz dredge and gillnets	frozen in plastic bags	HNO_3 digestion; ashed; filtered; FAAS	NS	+100%	NS	9.96	NC	1	some data presented as means; DWB; accuracy based on NBS orchard leaves reference material; Notes 6, 8
		As	mmol kg^{-1}	2	25	25	Kolkwitz dredge and gillnets	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	+3.0%	NC	0.371	NC	3	some data presented as means; DWB; accuracy based on NBS orchard leaves reference material; Note 8
		Se	µmol kg^{-1}	2	25	25	Kolkwitz dredge and gillnets	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	+12.5%	NC	5.2	NC	3	some data presented as means; DWB; accuracy based on NBS orchard leaves reference material; Note 8
		Hg	µmol kg^{-1}	2	25	23	Kolkwitz dredge and gillnets	frozen in plastic bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.07	NC	1	some data presented as means; DWB; Note 9
	(Sea urchins (whole body analysis): Strongylocentrotus drobachiensis)	Pb	µmol kg^{-1}	2	34	21	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	NS	NC	6.6	NC	1	some data presented as means; DWB; Note 9
		Zn	mmol kg^{-1}	2	34	34	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion; ashed; filtered; FAAS	NS	NS	NC	0.767	NC	2	some data presented as means; DWB; Note 9
		Cd	µmol kg^{-1}	2	34	34	Ekman and Kolkwitz dredge	frozen in plastic bags	HNO_3 digestion; ashed; filtered; FAAS	NS	NS	NC	10.7	NC	2	some data presented as means; DWB; Note 9
		As	mmol kg^{-1}	2	34	34	Ekman and Kolkwitz dredge	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	NS	NC	0.047	NC	2	some data presented as means; DWB; Note 9
		Hg	µmol kg^{-1}	2	34	27	Ekman and Kolkwitz dredge	frozen in plastic bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.1	NC	1	DWB; data presented as means; Note 9
76-0021	MOTA (Northern Fulmar, Black-legged Kittiwake, Thick-billed Murre, Dovekie, Black Guillemot)	As	mmol kg^{-1}	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	AgDDC extraction; UV spectrophotometry	NS	NS	0.019 - 0.672	0.171	0.145	2	muscle - DWB; NPG
				6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	AgDDC extraction; UV spectrophotometry	NS	NS	0.015 - 1.213	0.217	0.109	2	liver - DWB
		Cu	mmol kg^{-1}	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.068 - 0.356	0.233	0.233	2	muscle - DWB
				6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.137 - 0.363	0.249	0.248	2	liver - DWB

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES <d.l.	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
76-0021 (cont'd)		Zn	mmol kg⁻¹	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.340 - 0.819	0.572	0.575	2	muscle - DWB
				6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.997 - 2.988	1.458	1.386	2	liver - DWB
		Cd	mmol kg⁻¹	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.001 - 0.072	0.015	0.006	2	muscle - DWB
				6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.005 - 0.417	0.110	0.081	2	liver - DWB
		Cr	mmol kg⁻¹	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.003 - 0.115	0.029	0.022	2	muscle - DWB
				6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.002 - 0.270	0.040	0.020	2	liver - DWB
		V	mmol kg⁻¹	6	50	0	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	-	< d.l.	-	1	muscle - DWB; Note 9; d.l. not specified
				6	50	0	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	-	< d.l.	-	1	liver - DWB; Note 9; d.l. not specified
		Hg	μmol kg⁻¹	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.120 - 3.703	0.800	0.500	2	muscle - WWB (Note 4)
				6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	H_2SO_4/HNO_3 digestion; CVAAS	NS	NS	1.198 - 18.888	4.990	1.700	2	liver - WWB (Note 4)
		Pb	mmol kg⁻¹	6	50	50	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	HNO_3 digestion; FAAS	NS	NS	0.013 - 0.370	0.090	0.085	0	leg bones - DWB; to reduce lead shot contamination, perforated or hemorrhaged tissues were not used in analysis; Pb contamination considered likely by authors
	(total)	DDE	mmol kg⁻¹	6	50	48	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	ECGC; TLC	NS	NS	< d.l. - 0.059	NC	0.007	1, 2	LWB; d.l. not given; standards were used and correction factors applied; well documented; Note 9
		p,p'-DDT	mmol kg⁻¹	6	50	46	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	ECGC; TLC	NS	NS	< d.l. - 0.040	NC	0.003	1, 2	LWB; d.l. not given; standards were used and correction factors applied; well documented; Note 9

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES >d.l.	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
76-0021 (cont'd)		p,p'-DDD	mmol kg^{-1}	6	50	35	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	ECGC; TLC	NS	NS	< d.l. - 0.059	NC	0.007	1, 2	LWB; d.l. not given; standards were used and correction factors applied; well documented; Note 9
		o,p'-DDT	mmol kg^{-1}	6	50	35	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	ECGC; TLC	NS	NS	< d.l. - 0.040	NC	0.003	1, 2	LWB; d.l. not given; standards were used and correction factors applied; well documented; Note 9
		HCB	µmol kg^{-1}	6	50	17	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	ECGC; TLC	NS	NS	< d.l. - 0.057	NC	0.003	1, 2	LWB; d.l. not given; standards were used and correction factors applied; well documented; Note 9
		PCB	mg kg^{-1}	6	50	14	firearms and lead shot	wrapped in aluminum foil; frozen; tissues later frozen in glass jars	ECGC; TLC	NS	NS	< d.l. - 0.044	NC	0.002	1, 2	LWB; d.l. not given; standards were used and correction factors applied; well documented; Note 9
76-0022	BIOTA (seals)	Hg	µmol kg^{-1}	2	65	65	hunted	frozen	Armstrong and and Uthe (1971)	25% - 86%	NS	NS	41.1	NC	2	liver - WWB (Note 4); data presented as means; NPG
				2	66	66	hunted	frozen	Armstrong and and Uthe (1971)	42% - 88%	NS	NS	2.1	NC	2	muscle - WWB (Note 4); data presented as means
		Me-Hg	µmol kg^{-1}	1	10	10	hunted	frozen	Armstrong and and Uthe (1971)	48%	NS	NS	4.1	NC	2	liver - WWB (Note 4); data presented as means
		Se	mmol kg^{-1}	1	10	10	hunted	frozen	Hoffman et al. (1968)	65%	NS	NS	0.12	NC	2	liver - WWB (Note 4); data presented as means
77-0014	SEA WATER	O_2	mol m^{-3}	15	163	163	Niskin bottles mounted on rosette	NS	NS	±0.4%	NS	0.216 - 0.428	0.331	0.331	3	
	(water column)	oil	mg m^{-3}	15	157	154	CTD/rosette package with Niskin samplers	Teflon bottles	CCl_4 extraction followed by FS immediately	NS	NS	< d.l. - 20.00	NC	0.40	1, 2	d.l. not given; Note 9
	(floating residues)	oil	mg m^{-3}	13	13	10	Neuston net	frozen	CCl_4 extraction; gravimetry	NS	NS	< d.l. - 0.008	NC	< d.l.	1, 2	d.l. not given; Note 9
	(surface microlayer)	oil	mg m^{-3}	2	2	2	S/S screen lowered onto sea surface; recovery of water retained on mesh	NS	CCl_4 extraction; FS	NS	NS	25.2 - 43.5	34.4	34.4	2	
		CH_4	mmol m^{-3}	15	159	159	glass-lined Blumer sampling bottle	none, analysis on shipboard	CCl_4 extraction; FIDGC	NS	NS	1.44 - 13.46	3.34	3.05	2	
		alk_t	equiv m^{-3}	15	159	159	NS	NS	NS	NS	NS	2.0656 - 2.8788	2.2286	2.2265	2	
		CO_3	equiv m^{-3}	15	159	159	NS	NS	NS	NS	NS	1.8936 - 2.7743	2.1001	2.1187	2	
		SiO_3	mmol m^{-3}	15	175	175	Niskin bottles on rosette sampler	none, analysis within a few h of collection	Technicon AuA	NS	NS (Note 7)	0.94 - 34.94	12.66	13.78	3	Note 10
		PO_4	mmol m^{-3}	15	176	176	Niskin bottles on rosette sampler	none, analysis within a few h of collection	Technicon AuA	NS	NS (Note 7)	0.80 - 1.97	1.45	1.52	3	Note 10

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES w.d.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
77-0016 (cont'd)		NO_3	mmol m^{-3}	15	176	146	Niskin bottles on rosette sampler	none, analysis within a few h of collection	Technicon AuA	NS	NS (Note 7)	< d.l. - 17.26	NC	10.31	3	d.l. not given; Note 10
		NH_3	mmol m^{-3}	3	9	9	Niskin bottles on rosette sampler	none, analysis within a few h of collection	wet chemical oxidation; spectrophotometry at 660 nm	NS	NS (Note 7)	0.12 - 0.51	0.26	0.17	3	Note 10
		chl. a	mg m^{-3}	15	53	53	Niskin bottles on rosette sampler	none, analysis within a few of collection	FS; Yentsch and Menzel (1963)	NS	NS	0.10 - 2.92	0.60	0.46	2	
		POC	mg m^{-3}	4	12	12	Niskin bottles	none, analysis on shipboard	NS	NS	NS	7.3 - 191.3	71.7	48.9	2	
		POH	mg m^{-3}	4	12	12	NS	none, analysis on shipboard	NS	NS	NS	2.49 - 34.30	15.85	11.55	2	
		PON	mg m^{-3}	4	12	12	NS	none, analysis on shipboard	NS	NS	NS	0.88 - 7.56	5.34	5.63	2	
		^{18}O	o/oo	10	95	95	Niskin bottles	tightly capped glass bottles	Epstein and Mayeda (1953)	NS	NS	(-3.02) - (0.10)	-1.65	-1.69	2	relative to SMOW
		^{13}C	o/oo	1	7	7	Niskin bottles	NS	NS	NS	NS	0.16 - 0.72	0.52	0.51	2	in total dissolved CO_2
		^3He	%	5	22	22	Niskin bottles, Go-Flo samplers	sealed copper tube; vacuum extraction; 6 months	MS	NS	NS	(-0.3) - (38.9)	15.0	13.4	2	standard not specified
		He	µmol m^{-3}	5	22	22	Niskin bottles, Go-Flo samplers	sealed copper tube; vacuum extraction; 6 months	MS	± 0.5%	NS	1.80 - 2.06	1.88	1.87	3	relative to $(^3He/^4He)_{atm}$ = 1.384 x 10^{-6}
		Ne	µmol m^{-3}	5	21	21	Niskin bottles, Go-Flo samplers	sealed copper tube; vacuum extraction; 6 months	MS	± 0.3%	NS	8.01 - 9.09	8.42	8.47	3	
		^3H	T.U.	5	24	24	Niskin bottles, Go-Flo samplers	sealed copper tube; vacuum extraction; 6 months	MS	± 5% - ± 8%	NS	9.6 - 30.3	17.15	18.20	3	precision varies with concentration
	(total)	Mn	µmol m^{-3}	2	10	10	Niskin bottles, Go-Flo samplers	acidified with Aristar HCl to pH ~ 2; stored in acid-cleaned PE bottles	MIBK extraction; (pH ~ 9.2); GFAAS	NS	NS	4.2 - 6.9	5.5	5.4	2	
	(total)	Fe	µmol m^{-3}	2	10	10	Niskin bottles, Go-Flo samplers	acidified with Aristar HCl to pH ~ 2; stored in acid-cleaned PE bottles	MIBK extraction; (pH ~ 4); GFAAS	NS	NS	23.1 - 62.1	32.0	30.1	2	
		Ni	µmol m^{-3}	2	10	10	Niskin bottles, Go-Flo samplers	acidified with Aristar HCl to pH ~ 2; stored in acid-cleaned PE bottles	MIBK extraction; (pH ~ 4); GFAAS	± 13%	NS	3.4 - 5.6	4.7	4.7	3	
		Cu	µmol m^{-3}	2	10	10	Niskin bottles, Go-Flo samplers	acidified with Aristar HCl to pH ~ 2; stored in acid-cleaned PE bottles	MIBK extraction; (pH ~ 4); GFAAS	± 14%	NS	3.4 - 5.2	4.7	4.6	3	
		Cd	µmol m^{-3}	2	10	10	Niskin bottles, Go-Flo samplers	acidified with Aristar HCl to pH ~ 2; stored in acid-cleaned PE bottles	MIBK extraction; (pH ~ 4); GFAAS	± 18%	NS	0.23 - 0.74	0.52	0.54	3	
	BOTTOM SEDIMENT (whole sediment)	oil	mg kg^{-1}	9	9	9	Shipek grab	frozen in glass jars	freeze-dried; hexane extraction; FS	NS	NS	8.75 - 41.23	22.78	22.50	2	

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ADJ.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
77-0015A	SEA WATER	$NO_3 + NO_2$	mmol m^{-3}	1	15	15	Niskin bottles	NS	Technicon AuA	NS	NS (Note 7)	7.8 - 9.5	8.5	8.4	2	NPG
		PO_4	mmol m^{-3}	1	15	15	Niskin bottles	NS	Technicon AuA	NS	NS (Note 7)	1.28 - 1.50	1.39	1.40	2	
		SiO_3	mmol m^{-3}	1	15	15	Niskin bottles	NS	Technicon AuA	NS	NS (Note 7)	19.0 - 22.7	20.6	20.2	2	
		chl. a	mg m^{-3}	1	15	14	Niskin bottles	plastic bottles (time NS)	spectrophotometry; Strickland and Parsons (1972)	NS	NS (Note 7)	-0.01 - 0.05	0.02	0.01	2	
		chl.	mg m^{-3}	1	15	15	Niskin bottles	plastic bottles (time NS)	spectrophotometry; Strickland and Parsons (1972)	NS	NS	0.02 - 0.12	0.06	0.05	2	
77-0015B	SEA WATER	$NO_3 + NO_2$	mmol m^{-3}	3	8	6	Niskin bottles	NS	Technicon AuA	NS	NS (Note 7)	-0.1 - 7.6	1.8	0.9	2	NPG
		PO_4	mmol m^{-3}	3	8	8	Niskin bottles	NS	Technicon AuA	NS	NS (Note 7)	0.40 - 0.96	0.71	0.70	2	
		SiO_3	mmol m^{-3}	3	8	7	Niskin bottles	NS	Technicon AuA	NS	NS (Note 7)	-0.1 - 7.6	2.7	1.8	2	
		chl. a	mg m^{-3}	3	8	8	Niskin bottles	NS	spectrophotometry Strickland and Parsons (1972)	NS	NS (Note 7)	0.08 - 0.80	0.22	0.14	2	
77-0016A	SEA WATER	$NO_3 + NO_2$	mmol m^{-3}	1	15	15	Niskin bottles	filtered (0.45 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS (Note 7)	0.7 - 7.6	2.5	NC	2	data presented as range and means; NPG
		PO_4	mmol m^{-3}	3	15	15	Niskin bottles	filtered (0.45 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS (Note 7)	0.98 - 2.00	1.17	NC	2	data presented as range and means
		SiO_3	mmol m^{-3}	3	15	15	Niskin bottles	filtered (0.45 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS (Note 7)	4.9 - 19.0	9.4	NC	2	data presented as ranged and means
		O_2	mol m^{-3}	1	5	5	Niskin and Nansen bottles	none	Hach kit	NS	NS (Note 7)	0.325 - 0.413	0.374	0.394	2	
		chl. a	mol m^{-3}	2	10	10	Niskin bottle	filtered (0.45 μm); $MgCO_3$ preserved; frozen	spectrophotometry; Strickland and Parsons (1972)	NS	NS	0.01 - 0.10	NC	NC	2	data presented graphically
77-0016B	SEA WATER	$NO_3 + NO_2$	mmol m^{-3}	9	46	46	Niskin bottle	filtered (0.45 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS (Note 7)	0.0 - 9.2	0.122	NC	2	data presented as range and means; NPG
		PO_4	mmol m^{-3}	9	46	46	Niskin bottle	filtered (0.45 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS (Note 7)	0.10 - 1.60	0.84	NC	2	data presented as range and means
		SiO_3	mmol m^{-3}	9	46	46	Niskin bottle	filtered (0.45 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS (Note 7)	1.80 - 27.9	5.36	NC	2	data presented as range and means
		O_2	mol m^{-3}	1	9	9	Niskin and Nansen bottles	none	Hach kit	NS	NS (Note 7)	0.219 - 0.416	0.349	0.353	2	
		chl. a	mg m^{-3}	7	28	28	Niskin bottle	filtered (0.45 μm); $MgCO_3$ preserved; frozen	spectrophotometry; Strickland and Parsons (1972)	NS	NS	0.08 - 0.80	NC	NC	2	data presented graphically
78-0006	SEA WATER	O_2	mol m^{-3}	1	12	12	NS	bottles	Hach kit	± 0.004	NS	NC	0.433	NC	1	data presented as means; uncertain performance of Hach kit

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ×d.l.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
78-0020	SEA WATER	O_2	mol m^{-3}	4	58	58	SFC: plastic bucket; depth: Niskin bottles	innoculated with 1 mL sodium bicarbonate	modified WT	NS	NS	0.207 - 0.455	0.308	0.313	2	
		chl. a	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	filtered; frozen on glass fibre in a dessicator (-20°C)	FS	NS	NS	4.28 - 5.64	4.79	4.44	2	
		C	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	filtered; freeze-dried; frozen (-20°C)	CHN analyser	NS	NS	275 - 302	288	287	2	
		N	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	filtered; freeze-dried; frozen (-20°C)	CHN analyser	NS	NS	48 - 53	51	51	2	
		RNA	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	filtered; frozen (-20°C)	FS	NS	NS	22.13 - 22.80	22.35	22.13	2	
		DNA	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	filtered; frozen (-20°C)	FS	NS	NS	3.47 - 4.62	4.16	4.38	2	
		ATP	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	three minute extraction in boiling tris buffer; frozen (-20°C)	photometry	NS	NS	0.651 - 0.710	0.671	0.652	2	
		protein	mg m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	filtered; frozen (-20°C)	FS	NS	NS	155.6 - 198.3	170.8	158.4	2	
		PO_4	mmol m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	frozen (-20°C)	Technicon AuA	NS	NS	0.64 - 0.76	0.70	0.71	3	Note 10
		NO_3	mmol m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	frozen (-20°C)	Technicon AuA	NS	NS	0.40 - 0.46	0.43	0.42	3	Note 10
		SiO_3	mmol m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	frozen (-20°C)	Technicon AuA	NS	NS	2.28 - 2.76	2.46	2.34	3	Note 10
		NH_3	mmol m^{-3}	1	3	3	SFC: plastic bucket; depth: Niskin bottles	none, analysis within a few h of collection	wet chemical oxidation; spectrophotometry at 640 nm	NS	NS	0.03 - 0.04	0.04	0.04	3	Note 10
78-0021	SEA WATER	SPM	g m^{-3}	16	16	16	NS	NS	NS	NS	NS	7.0 - 68.3	19.6	13.0	2	NPG
78-0022A	SEA WATER	NO_3 + NO_2	mmol m^{-3}	8	72	72	Niskin bottles	filtered (0.65 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS	0.0 - 16.35	NC	NC	2	data presented graphically or as ranges and means
		NO_3	mmol m^{-3}	12	32	32	Niskin bottles	filtered (0.65 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS	0.21 - 3.72	0.71	NC	2	data presented graphically or as ranges and means; different station represented than for NO_3 + NO_2
		PO_4	mmol m^{-3}	17	101	101	Niskin bottles	filtered (0.65 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS	0.00 - 1.64	NC	NC	2	data presented graphically or as ranges and means
		SiO_3	mmol m^{-3}	8	72	72	Niskin bottles	filtered (0.65 μm); preserved with $CHCl_3$; frozen in PE bottles	Technicon AuA	NS	NS	0.20 - 43.6	NC	NC	2	data presented graphically or as ranges and means
		chl. a	mmol m^{-3}	10	42	42	Niskin bottles	filtered (0.65 μm); preserved with $CHCl_3$; frozen in PE bottles	FS	NS	NS	0.2 - 8.2	NC	NC	2	data presented graphically or as ranges and means

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES d.f.	METHODOLOGY		INFORMATION			MEASURED VALUES				DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range		Mean	Median		
78-00225	SEA WATER	NO_3 + NO_2	mmol m^{-3}	8	78	76	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	9.2	NA	NA	2	data presented graphically
		PO_4	mmol m^{-3}	11	97	95	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	3.9	NA	NA	2	data presented graphically
		SiO_3	mmol m^{-3}	7	56	53	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	29.0	NA	NA	2	data presented graphically
		NH_4	mg m^{-3}	11	78	77	Niskin bottles	preserved with $MgCl_2$ g; filtered (0.45 µm); frozen	FN	NA	NA	0.0	0.2	NA	NA	2	data presented graphically
		NO_2	mmol m^{-3}	6	21	7	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	0.4	NA	NA	2	data presented graphically; different stations than shown for NO_3 + NO_2 data
78-00226	SEA WATER	NO_3 + NO_2	mmol m^{-3}	7	61	59	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	8.6	NA	NA	2	data presented graphically
		PO_4	mmol m^{-3}	7	58	55	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	0.21	NA	NA	2	data presented graphically
		SiO_3	mmol m^{-3}	7	62	61	Niskin bottles	PE bottles; filtered (0.45 µm); preserved with 1 HCl g; frozen	Technicon AutoA	NA	NA	0.0	17.0	NA	NA	2	data presented graphically
		NH_4	mg m^{-3}	7	42	42	Niskin bottles	preserved with $MgCl_2$ g; filtered (0.45 µm); frozen	FN	NA	NA	0.6	2.9	NA	NA	2	data presented graphically
79-0014	SEA WATER	O_2	mol m^{-3}	2	22	22	NA	precipitated immediately	Hach (OX-2P) kit	NA	NA	NA		0.40	NA	1	data presented as mean values; uncertain performance of Hach kit
79-0024	BOTTOM SEDIMENT (<1.0 mm fraction)	Pb	mmol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; MIBK extraction of digest; FAAS	NA	NA	0.015	0.367	0.076	0.039	2	NPL; DBR
		Zn	mmol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NA	NA	0.31	11.48	1.97	0.55	2	DBR
		Cd	µmol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NA	NA	0.2	14.0	2.6	0.8	2	DBR
		As	mmol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NA	NA	0.023	0.126	0.056	0.049	2	DBR
		Hg	µmol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NA	NA	0.03	0.19	0.07	0.05	2	DBR
		Mn	mmol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NA	NA	2.38	5.26	4.17	4.63	2	DBR
		Fe	mol kg^{-1}	8	8	8	K.R. corer	frozen in whirl pak bags	freeze-dried; HNO_3; HF/HCl/H_2O_2 digestion; FAAS	NA	NA	0.202	0.699	0.415	0.427	2	DBR

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ≥d.l.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
79-0024	BIOTA (Seaweeds: Fucus vesiculosus, Agarum cribrosum, Laminaria solidungula)	Pb	mmol kg^{-1}	8	67	67	SCUBA	frozen in plastic bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	+2.1% 0.0% +26.0%	NC	0.031	NC	2	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials; Note 8
		Zn	mmol kg^{-1}	8	67	67	SCUBA	frozen in plastic bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	+2.0% +1.5% +16.2%	NC	1.67	NC	2	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials; Note 8
		Cd	µmol kg^{-1}	8	67	67	SCUBA	frozen in plastic bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	-3.1% 0%	NC	0.42	NC	2	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials; Note 8
		As	mmol kg^{-1}	8	67	67	SCUBA	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-6.7% +27.3% +10.0%	NC	0.42	NC	2	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials; Note 8
		Se	µmol kg^{-1}	8	67	67	SCUBA	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$;	NS	-10.0% +1.8% +7.6%	NC	1.9	NC	2	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials; Note 8
		Hg	µmol kg^{-1}	8	67	67	SCUBA	frozen in plastic bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.050	NC	2	DWB; data presented as mean values
	(Sea urchins (whole body analysis): Strongylocentrotuts droebechiensis)	Pb	mmol kg^{-1}	5	49	49	SCUBA	frozen in plastic bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	+2.1% 0.0% +26.0%	NC	0.053	NC	3	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Zn	mmol kg^{-1}	5	49	49	SCUBA	frozen in plastic bags	HNO_3 digestion; ashed; filtered; FAAS	NS	+2.0% +1.5% +16.2%	NC	2.19	NC	3	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Cd	µmol kg^{-1}	5	49	49	SCUBA	frozen in plastic bags	HNO_3 digestion; ashed; filtered; FAAS	NS	-3.1% 0%	NC	5.30	NC	3	DWB; data presented as mean values; accuracies based on NBS oyster and liver reference materials
		As	mmol kg^{-1}	5	49	49	SCUBA	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-6.7% +27.3% +10.8%	NC	0.047	NC	3	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Se	µmol kg^{-1}	5	49	49	SCUBA	frozen in plastic bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-10.0% +1.8% +7.6%	NC	6.3	NC	3	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Hg	µmol kg^{-1}	5	49	49	SCUBA	frozen in plastic bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.15	NC	2	DWB; data presented as mean values

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ref.	METHODOLOGY		INFORMATION			MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
79-0826	(Molluscs (soft body tissues only): Mya truncata, Serripes groenlandicus, Cardium ciliatum, Hiatella arctica)	Pb	μmol kg⁻¹	6	E4	E4	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDC extraction; FAAS	NA	+2.1% 0.0% 26.0%	NC	9.66	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Zn	mmol kg⁻¹	6	E4	E4	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDC extraction; FAAS	NA	+2.0% +1.5% +16.2%	NC	1.26	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Cd	mmol kg⁻¹	6	E4	E4	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDC extraction; FAAS	NA	3.1% 0.0%	NC	0.025	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster and liver reference materials
		As	mmol kg⁻¹	6	E1	E1	SCUBA	frozen; dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NA	6.7% +27.1% +10.0%	NC	0.216	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Se	mmol kg⁻¹	6	E1	E1	SCUBA	frozen, dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$ GFAAS	NA	10.0 +1.8% +7.6%	NC	0.096	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Hg	μmol kg⁻¹	6	E1	E1	SCUBA	frozen; dessicated in whirlpak bags	addition of $KMnO_4$; HNO_3/H_2SO_4 digestion; CVAAS	NA	NA	NC	0.2	NC	2	D&B; data presented as mean values
	(Sea star, Leptasterias polaris)	Pb	μmol kg⁻¹	2	6	6	SCUBA	frozen, dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NA	+2.1% 0.0% +26.0%	NC	5.79	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Zn	mmol kg⁻¹	2	6	6	SCUBA	frozen, dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NA	+2.0% +1.5% +16.2%	NC	0.959	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Cd	mmol kg⁻¹	2	6	6	SCUBA	frozen, dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NA	3.1% 0.0%	NC	0.018	NC	1	D&B; data presented as mean values; accuracies on NBS oyster and liver reference materials
		As	mmol kg⁻¹	2	6	6	SCUBA	frozen, dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NA	6.7% +27.1% +10.0%	NC	0.049	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Se	mmol kg⁻¹	2	6	6	SCUBA	frozen; dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$, GFAAS	NA	10.0% +1.8% 7.6%	NC	0.032	NC	1	D&B; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ref.	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
79-0824 (cont'd)		Hg	µmol kg⁻¹	2	4	4	SCUBA	frozen; dessicated in whirlpak bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.90	NC	2	DWB; data presented as mean values
	(Sea cucumber)	Pb	µmol kg⁻¹	1	1	1	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDDK extraction; FAAS	NS	+2.1% 0.0% +26.0%	NC	1.6	NC	1	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Zn	mmol kg⁻¹	1	1	1	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NS	+2.0% +1.5% +16.2%	NC	0.798	NC	1	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Cd	mmol kg⁻¹	1	1	1	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NS	3.1% 0.0%	NC	0.044	NC	1	DWB; data presented as mean values; accuracies on NBS oyster and liver reference materials
		As	mmol kg⁻¹	1	1	1	SCUBA	frozen; dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-6.7% +27.3% +10.0%	NC	0.065	NC	1	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Se	mmol kg⁻¹	1	1	1	SCUBA	frozen; dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$ GFAAS	NS	10.0% +1.8% +7.6%	NC	0.018	NC	1	DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Hg	µmol kg⁻¹	1	1	1	SCUBA	frozen; dessicated in whirlpak bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.2	NC	2	DWB; data presented as mean values
	(Fish: Myoxocephalus quadricornis, Myoxocephalus scorpioides)	Pb	µmol kg⁻¹	6	17	17	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDDK extraction; FAAS	NS	+2.1% 0.0% +26.0%	NC	2.1	NC	1	muscle - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Zn	mmol kg⁻¹	6	18	18	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NS	+2.0% +1.5% +16.2%	NC	1.11	NC	1	muscle - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Cd	µmol kg⁻¹	6	18	18	SCUBA	frozen; dessicated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NS	3.1% 0.0%	NC	2.0	NC	1	muscle - DWB; data presented as mean values; accuracies based on NBS oyster and liver reference materials
		As	mmol kg⁻¹	6	18	18	SCUBA	frozen; dessicated in whirlpak bags	$HNO_3/H_2SO_4/HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-6.7% +27.3% +10.0%	NC	0.186	NC	1	muscle - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ND	METHODOLOGY INFORMATION					MEASURED VALUES			DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range	Mean	Median		
79-0024 (cont'd)		Se	mmol kg^{-1}	6	18	18	SCUBA	frozen; desiccated in whirlpak bags	HNO_3/H_2SO_4/ $HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-10.0% +1.8% +7.6%	NC	0.029	NC	1	muscle - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Hg	µmol kg^{-1}	6	18	18	SCUBA	frozen; desiccated in whirlpak bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	2.7	NC	2	muscle - DWB; data presented as mean values
		Pb	µmol kg^{-1}	5	11	11	SCUBA	frozen; desiccated in whirlpak bags	HNO_3 digestion; ashed; filtered; DDDC extraction; FAAS	NS	+2.1% 0.0% +26.0%	NC	2.1	NC	1	liver - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Zn	mmol kg^{-1}	5	11	11	SCUBA	frozen; desiccated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NS	+2.0% +1.5% +16.2%	NC	1.48	NC	1	liver - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Cd	µmol kg^{-1}	5	11	11	SCUBA	frozen; desiccated in whirlpak bags	HNO_3 digestion; ashed; filtered; FAAS	NS	-1.1% 0.0%	NC	10.7	NC	1	liver - DWB; data presented as mean values; accuracies based on NBS oyster and liver reference materials
		As	mmol kg^{-1}	6	16	16	SCUBA	frozen; desiccated in whirlpak bags	HNO_3/H_2SO_4/ $HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-6.7% +27.9% +10.0%	NC	0.217	NC	1	liver - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Se	mmol kg^{-1}	6	16	16	SCUBA	frozen; desiccated in whirlpak bags	HNO_3/H_2SO_4 $HClO_4$ digestion; addition of $NaBH_4$; GFAAS	NS	-10.0% +1.8% +7.6%	NC	0.068	NC	1	liver - DWB; data presented as mean values; accuracies based on NBS oyster, liver and tuna reference materials
		Hg	µmol kg^{-1}	6	17	17	SCUBA	frozen; desiccated in whirlpak bags	addition of V_2O_5; HNO_3/H_2SO_4 digestion; CVAAS	NS	NS	NC	0.80	NC	2	liver - DWB; data presented as mean values
80-0007	SEA WATER	O_2	mol m^{-3}	94	424	424	NS	NS	NS	NS	NS	0.122 - 0.495	0.319	0.313	2	
		SiO_3	mmol m^{-3}	93	421	421	NS	NS	NS	NS	NS	0.22 - 41.70	16.74	19.06	3	Note 10
		PO_4	mmol m^{-3}	93	421	421	NS	NS	NS	NS	NS	0.47 - 3.61	1.90	1.36	3	Note 10
		NO_3	mmol m^{-3}	93	421	350	NS	NS	NS	NS	NS	d.l. - 20.82	NC	10.06	3	d.l. not given; Note 10
80-0009	SEA WATER	O_2	mol m^{-3}	3	13	13	NS	NS	Hach kit	NS	NS	0.42 0.49	0.47	0.47	1	information obtained solely from unpublished original worksheets; uncertain performance of Hach kit

DATA SET NO.	MEDIUM SAMPLED	MEASUREMENT		NO. STATIONS	NO. SAMPLES	NO. SAMPLES ed.	METHODOLOGY		INFORMATION			MEASURED VALUES				DATA RATING	REMARKS
		Qty	Units				Collection	Storage	Analysis	Precision	Accuracy	Range		Mean	Median		
80-0018	BIOTA (polar bear hair)	Hg	[illegible]	2	16	16	[illegible]	[illegible]	[illegible]	[illegible]	NA	[illegible]	[illegible]	[illegible]	NA	1	data presented as range and mean
81-0007	SEA ICE	PO_4	NA	4	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	3	data unpublished as unreliable due to poor preservation
		NO_3	NA	4	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	3	data unpublished as unreliable due to poor preservation
		NO_2 + NO_3	NA	4	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	3	data unpublished as unreliable due to poor preservation

9. DATA INVENTORY TABLE 3.

NOTES APPLICABLE TO TABLE 3

Note 1. Latitude and longitude approximated from hydrographic chart.

Note 2. 20 stations were sampled for O_2 and PO_4 determinations in Prince Regent Inlet and Gulf of Boothia.

Note 3. 13 stations were sampled in Lancaster Sound and Barrow Strait for O_2 determination only.

Note 4. The reported time is doubtful.

Note 5. One-ringed seal muscle sample.

Note 6. Two polar bear brain samples.

Note 7. One polar bear muscle sample.

Note 8. The station depth represents the mean depth of Resolute Bay.

Note 9. The measurements were made either in Resolute Bay or immediately outside the bay.

Note 10. 1 arctic char sample.

Note 11. Sampling between April 20 (2314 GMT) and April 21 (0126 GMT).

Note 12. Sampling between August and September.

Note 13. 11 stations within Cunningham Inlet were sampled.

Note 14. 77 sculpins.

Note 15. 14 arctic char.

Note 16. 1 greenland shark.

Note 17. 3 samples of shrimp.

Note 18. 1 sample of seaweed.

Note 19. 2 samples of seaweed.

Note 20. Sampling area is approximately between 84° 30' W and 84° 45' W along southern shore of Strathcona Sound.

Note 21. Ice core.

Note 22. Sampling location only represents the general location of Strathcona Sound.

Note 23. Between September 4 and 29, 1975.

Note 24. 28 samples of bivalve molluscs and gastropods collected in vicinity of Station 3.

Note 25. Station depths estimated from bathymetry diagram of Strathcona Sound.

Note 26. Geographic coordinates represent the approximate area of trawling.

Note 27. 84 samples of arctic cod.

Note 28. 2 samples of copepods.

Note 29. 1 sample of amphipods.

Note 30. 2 samples of chaetognaths.

Note 31. 4 samples of fucoid algae.

Note 32. 8 samples of fucoid algae and 10 samples of purple sea urchin.

Note 33. 5 samples of fucoid algae.

Note 34. 10 samples of fucoid algae.

Note 35. 3 samples of purple sea urchin.

Note 36. 6 samples of fucoid algae.

Note 37. 89 samples of ringed seal muscle.

Note 38. 88 samples of ringed seal muscle.

Note 39. Early July, approximately July 3.

Note 40. At 300 m Knudsen sampler did not close tightly.

Note 41. 8 samples of seaweeds.

Note 42. 2 samples of sea urchins.

Note 43. 13 samples of sea urchins.

Note 44. 17 samples of seaweeds.

Note 45. 19 samples of sea urchins.

Note 46. 5 northern Fulmars.

Note 47. 10 black-legged Kittiwakes.

Note 48. 4 thick-billed Murres.

Note 49. 5 black Guillemots.

Note 50. 6 thick-billed Murres.

Note 51. 5 Dovekies.

Note 52. 5 black Guillemots.

Note 53. 5 Dovekies.

Note 54. 5 northern Fulmars.

Note 55. 27 ringed seals.

Note 56. 1 bearded seal.

Note 57. 37 ringed seals.

Note 58. Between August 17 and September 21, 1978.

Note 59. A total of 9 stations were sampled at this location.

Note 60. 25 points within Cape Hay were sampled, spaced 0.83 km apart.

Note 61. 4 samples of seaweeds.

Note 62. 5 samples of sea urchins.

Note 63. 8 samples of molluscs.

Note 64. 3 samples of sea cucumber.

Note 65. 2 samples of fish.

Note 66. 9 samples of seaweeds.

Note 67. 20 samples of molluscs.

Note 68. 5 samples of fish.

Note 69. 6 samples of seaweeds.

Note 70. 3 samples of sea urchins.

Note 71. 34 samples of molluscs.

Note 72. 3 samples of sea stars.

Note 73. 4 samples of fish.

Note 74. 21 samples of seaweeds.

Note 75. 6 samples of molluscs.

Note 76. 8 samples of seaweeds.

Note 77. 12 samples of sea urchins.

Note 78. 13 samples of molluscs.

Note 79. 8 samples of fish.

Note 80. 7 samples of seaweeds.

Note 81. 3 samples of fish.

Note 82. 11 samples of sea urchins.

Note 83. 5 samples of molluscs.

Note 84. 1 sample of sea star.

Note 85. 11 samples of seaweeds.

Note 86. 12 samples of fish.

Note 87. Station depth as estimated in the report.

Note 88. Coordinates in error.

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
28-0001	122	74° 26.5'	81° 50'	735	1928	Aug.	20	0240	2	700	
	124	74° 16.5'	81° 56'	770	1928	Aug.	20	0800	4	750	
	126	74° 03'	82° 02'	650	1928	Aug.	20	1500	4	620	
	128	73° 53'	82° 07.5'	775	1928	Aug.	20	1945	2	775	
50-0002	12	74° 30'	82° 45'	713	1950	Aug.	17	0100	6	400	
	13	74° 36'	92° 40'	173	1950	Aug.	17	1600	5	149	
52-0003	35	74° 37'	94° 42'	120	1952	Aug.	8	0500	9	100	
	36	74° 50'	101° 45'	182	1952	Aug.	9	1800	4	150	
	37	74° 57'	108° 52'	63	1952	Aug.	11	1400	3	50	
	38	74° 56'	105° 05'	100	1952	Aug.	12	0800	7	100	
	39	74° 53'	102° 48'	128	1952	Aug.	12	1400	6	100	
	40	74° 46'	101° 22'	128	1952	Aug.	12	1800	6	100	
	41	74° 38'	96° 32'	256	1952	Aug.	13	1800	6	200	
53-0001	12	71° 59'	120° 02'	23	1953	Aug.	14	0800	3	15	
	13	71° 50'	118° 54'	66	1953	Aug.	15	1200	4	25	
	14	71° 55'	119° 32'	97	1953	Aug.	15	1500	6	90	
	15	72° 11'	119° 04'	97	1953	Aug.	15	2200	6	90	
	17	72° 22'	118° 46'	80	1953	Aug.	16	0300	5	40	
	18	72° 23'	118° 30'	42	1953	Aug.	16	0500	5	40	
	19	73° 12'	115° 30'	53	1953	Aug.	20	1900	4	40	
	20	73° 11'	115° 35'	86	1953	Aug.	20	2200	5	80	
	21	72° 24'	118° 42'	82	1953	Aug.	22	0500	4	40	
	22	72° 25'	119° 00'	49	1953	Aug.	22	0600	4	45	
	23	72° 21'	119° 15'	63	1953	Aug.	22	0800	5	60	
	24	72° 56'	117° 25'	51	1953	Aug.	23	0500	4	40	
	25	72° 35'	118° 25'	55	1953	Aug.	24	1900	4	40	
	26	72° 38'	118° 38'	92	1953	Aug.	24	2000	5	85	
	27	72° 40'	118° 54'	101	1953	Aug.	24	2100	5	95	
	28	72° 23'	118° 42'	74	1953	Aug.	24	2400	5	70	
	29	72° 23'	118° 58'	93	1953	Aug.	25	0200	5	90	
	30	72° 22'	119° 14'	64	1953	Aug.	25	0400	4	40	
	31	71° 58'	120° 13'	75	1953	Aug.	25	0800	5	70	
	32	71° 56'	119° 38'	120	1953	Aug.	25	1000	5	115	
	33	71° 53'	119° 08'	26	1953	Aug.	25	1200	2	15	
	34	71° 38'	119° 10'	21	1953	Aug.	25	1400	3	18	
	35	71° 31'	119° 50'	150	1953	Aug.	25	2200	6	145	
	37	73° 24'	115° 05'	54	1953	Aug.	31	0500	4	40	
	38	73° 21'	115° 03'	86	1953	Aug.	31	0900	5	80	
	39	73° 14'	115° 30'	109	1953	Aug.	31	1600	4	40	
	40	73° 05'	116° 38'	115	1953	Sept.	1	1800	4	40	
	41	73° 02'	116° 34'	150	1953	Sept.	1	1900	6	140	
	42	73° 01'	116° 28'	42	1953	Sept.	1	2100	4	45	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
54-0002	7	73° 27'	115° 03'	45	1954	Aug.	11	0200	6	40	
	8	73° 27'	115° 04'	30	1954	Aug.	11	2000	5	25	
	9	74° 30'	113° 47'	145	1954	Aug.	13	2000	7	130	
	10	74° 24'	113° 50'	362	1954	Aug.	13	2300	11	350	
	11	73° 57'	114° 24'	493	1954	Aug.	14	2000	11	475	
	12	73° 27'	114° 42'	100	1954	Aug.	15	0900	7	89	
	13	73° 56'	115° 50'	430	1954	Aug.	15	1900	10	400	
	14	73° 48'	116° 06'	130	1954	Aug.	15	2300	7	120	
	15	74° 37'	117° 22'	480	1954	Aug.	17	1900	11	450	
	16	74° 25'	117° 09'	493	1954	Aug.	18	1200	11	475	
	17	74° 09'	115° 55'	485	1954	Aug.	18	1900	9	450	
	19	74° 24'	112° 30'	235	1954	Aug.	19	1900	8	220	
	20	74° 59'	108° 50'	48	1954	Aug.	24	2200	3	10	
	21	74° 59'	108° 50'	48	1954	Aug.	25	0500	6	40	
	23	74° 59'	108° 50'	48	1954	Aug.	25	1700	6	30	
	24	74° 51'	109° 21'	55	1954	Aug.	27	0200	6	45	
	25	74° 40'	110° 36'	45	1954	Aug.	27	1900	4	45	
	26	74° 33'	110° 06'	226	1954	Aug.	27	2100	9	250	
	27	74° 31'	111° 30'	98	1954	Aug.	28	0300	5	90	
	28	74° 24'	111° 33'	329	1954	Aug.	28	0500	9	325	
	29	74° 06'	111° 33'	493	1954	Aug.	28	0800	10	490	
	30	73° 47'	111° 33'	285	1954	Aug.	28	1300	9	275	
	31	73° 32'	111° 27'	179	1954	Aug.	28	1600	8	175	
	32	73° 15'	113° 03'	201	1954	Aug.	30	0700	8	199	
	33	73° 33'	113° 07'	170	1954	Aug.	30	1100	7	165	
	34	73° 51'	112° 27'	430	1954	Aug.	30	1400	10	417	
	35	73° 45'	113° 45'	435	1954	Aug.	30	2200	10	388	
	36	73° 25'	114° 13'	38	1954	Aug.	31	0300	6	34	
	37	73° 27'	114° 29'	76	1954	Aug.	31	0800	7	68	
	38	73° 07'	116° 39'	70	1954	Sept.	4	1800	7	70	
	39	73° 14'	116° 18'	70	1954	Sept.	4	2300	7	70	
	41	73° 03'	116° 46'	75	1954	Sept.	5	0300	6	75	
	42	72° 19'	119° 20'	65	1954	Sept.	6	1000	6	60	
	43	72° 22'	118° 55'	80	1954	Sept.	6	1200	7	80	
	45	71° 36'	119° 50'	150	1954	Sept.	6	1800	8	150	
54-0003	8	74° 35'	121° 27'	243	1954	Aug.	14	1500	11	197	
	9	74° 12'	119° 02'	57	1954	Aug.	15	2300	8	50	
	10	74° 25'	118° 24'	448	1954	Aug.	16	1600	10	400	
	11	74° 16'	117° 33'	351	1954	Aug.	16	2100	11	300	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
54-0003 (cont'd)	12	74° 18'	118° 51'	342	1954	Aug.	17	0200	12	299	
	13	74° 16'	117° 32'	346	1954	Aug.	18	2100	11	299	
	14	74° 16'	117° 32'	346	1954	Aug.	19	0500	10	196	
	15	73° 55'	116° 23'	210	1954	Aug.	20	1900	10	173	
	16	73° 21'	115° 51'	20	1954	Aug.	23	2000	6	15	
	17	73° 23'	108° 22'	117	1954	Aug.	24	2000	7	105	
	18	73° 23'	109° 39'	132	1954	Aug.	25	0200	9	130	
	19	72° 58'	109° 02'	73	1954	Aug.	25	0600	7	65	
	20	73° 18'	109° 57'	276	1954	Aug.	26	0200	8	200	
	21	73° 32'	110° 51'	192	1954	Aug.	26	0400	8	149	
	22	73° 09'	111° 24'	249	1954	Aug.	26	1000	9	198	
	23	72° 59'	112° 55'	42	1954	Aug.	28	2100	8	39	
	24	72° 46'	118° 07'	44	1954	Sept.	3	1800	8	30	
	25	72° 05'	119° 00'	44	1954	Sept.	5	1300	8	40	
	26	72° 01'	119° 42'	104	1954	Sept.	6	1500	8	90	
	27	71° 58'	119° 08'	50	1954	Sept.	6	1600	8	40	
56-0002	1	74° 43.94'	95° 00.83'	NS	1956	July	18	NS	4	10	Note 1
	1	74° 43.94'	95° 00.83'	NS	1956	July	19	NS	3	4	Note 1
	1	74° 43.94'	95° 00.83'	NS	1956	July	20	NS	4	10	Note 1
	1	74° 43.94'	95° 00.83'	NS	1956	July	21	NS	4	10	Note 1
	1	74° 43.94'	95° 00.83'	NS	1956	July	23	NS	4	8	Note 1
	1	74° 43.94'	95° 00.83'	NS	1956	July	24	NS	4	9	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	July	26	NS	4	10	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	July	27	NS	3	6	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	July	30	NS	5	20	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	July	31	NS	4	15	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	2	NS	5	25	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	3	NS	5	25	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	4	NS	5	20	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	5	NS	4	15	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	7	NS	5	50	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	8	NS	5	20	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	10	NS	2	3	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	11	NS	4	15	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	12	NS	5	20	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	14	NS	3	10	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	15	NS	5	25	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	18	NS	4	15	Note 1

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
56-0002 (cont'd)	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	19	NS	5	25	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	20	NS	5	25	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	23	NS	5	25	Note 1
	2	74° 42.62'	95° 00.99'	NS	1956	Aug.	28	NS	5	25	Note 1
56-0003	Prince Regent Inlet	73° 30'	91° 00'	NS	1956	Sept.	NS	NS	NS	bottom	Note 2
	Gulf of Boothia	71° 30'	93° 00'	NS	1956	Sept.	NS	NS	NS	bottom	Note 2
	Lancaster Sound	74° 00'	86° 00'	NS	1956	Sept.	NS	NS	NS	bottom	Note 3
	Barrow Strait	74° 30'	95° 00'	NS	1956	Sept.	NS	NS	NS	bottom	Note 3
57-0003	35	74° 01'	89° 46'	247	1957	Aug.	20	1100	9	200	
	37	73° 42'	87° 46'	236	1957	Aug.	20	1500	9	200	
	39	73° 42'	89° 19'	457	1957	Aug.	20	1800	11	400	
	41	73° 14'	91° 03'	289	1957	Aug.	21	0000	10	250	
	43	73° 02'	89° 28'	183	1957	Aug.	21	0400	8	150	
	45	72° 18'	90° 16'	73	1957	Aug.	21	1200	5	50	
	47	72° 14'	92° 11'	101	1957	Aug.	21	1700	7	90	
	50	72° 01'	95° 49'	412	1957	Aug.	25	0400	11	312	
	53	71° 48'	96° 00'	439	1957	Aug.	25	1100	11	398	
	55	72° 11'	93° 16'	137	1957	Aug.	26	0700	8	120	
	57	71° 47'	93° 16'	75	1957	Aug.	26	1000	6	75	
	59	72° 28'	90° 07'	104	1957	Aug.	27	1400	7	100	
	61	72° 41'	92° 03'	223	1957	Aug.	27	1900	9	195	
	62	74° 10'	92° 27'	145	1957	Aug.	28	1100	8	140	
	64	74° 30'	92° 08'	183	1957	Aug.	28	1400	8	150	
	66	74° 40'	92° 30'	132	1957	Aug.	28	1700	8	120	
	68	74° 37'	93° 31'	177	1957	Aug.	28	1900	8	145	
	70	74° 22'	93° 26'	165	1957	Aug.	28	2100	8	150	
	71	74° 11'	94° 16'	152	1957	Aug.	29	0100	8	150	
	72	74° 19'	94° 19'	157	1957	Aug.	29	0200	8	150	
	73	74° 28'	94° 22'	165	1957	Aug.	29	0400	8	150	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
57-0003 (cont'd)	77	74° 18'	95° 14'	165	1957	Aug.	30	1400	10	149	
	80	73° 43'	96° 20'	247	1957	Aug.	30	2000	9	194	
	82	73° 11'	96° 14'	247	1957	Aug.	31	0100	8	196	
	83	72° 15'	96° 12'	357	1957	Aug.	31	0400	10	324	
	84	70° 56'	96° 54'	85	1957	Sept.	4	0100	6	75	
	85	71° 01'	97° 20'	87	1957	Sept.	4	0200	6	75	
	86	71° 09'	98° 00'	130	1957	Sept.	4	0400	7	100	
	88	71° 46'	92° 23'	124	1957	Sept.	8	0400	7	100	
	90	71° 47'	90° 11'	46	1957	Sept.	8	0900	5	40	
	92	71° 16'	90° 58'	174	1957	Sept.	8	1300	8	150	
	93	71° 10'	91° 47'	220	1957	Sept.	8	1500	9	200	
	96	70° 42'	91° 09'	146	1957	Sept.	8	2100	8	125	
	97	70° 47'	90° 22'	128	1957	Sept.	8	2200	7	100	
	100	70° 23'	89° 40'	128	1957	Sept.	9	0500	7	100	
	101	70° 16'	90° 26'	146	1957	Sept.	9	0800	8	125	
	105	74° 05'	96° 05'	192	1957	Sept.	13	2100	9	170	
	106	74° 04'	96° 44'	220	1957	Sept.	13	2300	9	200	
	126	74° 29'	90° 00'	274	1957	Sept.	18	0000	10	250	
	128	74° 14'	90° 02'	238	1957	Sept.	18	0300	9	200	
	130	73° 49'	87° 11'	284	1957	Sept.	19	0300	9	230	
	131	74° 01'	87° 09'	457	1957	Sept.	19	0500	9	396	
	132	74° 13'	87° 10'	424	1957	Sept.	19	0700	10	307	
	133	74° 25'	87° 10'	402	1957	Sept.	19	0800	6	355	
	135	74° 02'	84° 52'	521	1957	Sept.	20	1700	11	439	
	137	74° 28'	84° 52'	272	1957	Sept.	20	2000	9	239	
	139	74° 15'	82° 46'	768	1957	Sept.	21	0100	11	704	
	141	73° 48'	82° 52'	530	1957	Sept.	21	0500	10	500	
	142	73° 45'	80° 12'	635	1957	Sept.	23	1500	10	500	
	143	74° 02'	80° 15'	801	1957	Sept.	23	2100	10	600	
	145	74° 33'	80° 21'	640	1957	Sept.	24	0200	11	500	
60-0008	3	74° 32'	82° 57'	626	1960	NS	NS	NS	1	bottom	Note 1
	4	74° 30'	82° 40'	746	1960	NS	NS	NS	1	bottom	Note 1
	7	74° 27.5'	84° 28'	604	1960	NS	NS	NS	1	bottom	Note 1
	10	74° 29'	83° 30'	752	1960	NS	NS	NS	1	bottom	Note 1
	12	74° 28'	82° 58'	772	1960	NS	NS	NS	1	bottom	Note 1
	13	74° 28'	82° 40'	784	1960	NS	NS	NS	1	bottom	Note 1
	17	74° 24'	84° 45'	576	1960	NS	NS	NS	1	bottom	Note 1
	19	74° 23.5'	84° 05'	674	1960	NS	NS	NS	1	bottom	Note 1
	21	74° 23'	83° 30'	764	1960	NS	NS	NS	1	bottom	Note 1

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
60-0008 (cont'd)	23	74° 23'	82° 57'	776	1960	NS	NS	NS	1	bottom	Note 1
	26	74° 23.5'	82° 10'	766	1960	NS	NS	NS	1	bottom	Note 1
	27	74° 18.5'	85° 05'	580	1960	NS	NS	NS	1	bottom	Note 1
	30	74° 18.5'	84° 05'	654	1960	NS	NS	NS	1	bottom	Note 1
	33	74° 19'	83° 11'	808	1960	NS	NS	NS	1	bottom	Note 1
	36	74° 19'	82° 23'	868	1960	NS	NS	NS	1	bottom	Note 1
	41	74° 14.3'	84° 05'	652	1960	NS	NS	NS	1	bottom	Note 1
	46	74° 14.5'	82° 38'	828	1960	NS	NS	NS	1	bottom	Note 1
	51	74° 09.5'	84° 23'	624	1960	NS	NS	NS	1	bottom	Note 1
	54	74° 10'	83° 25'	732	1960	NS	NS	NS	1	bottom	Note 1
	57	74° 10'	82° 36'	776	1960	NS	NS	NS	1	bottom	Note 1
	60	74° 04.5'	85° 03'	512	1960	NS	NS	NS	1	bottom	Note 1
	63	74° 05'	84° 03'	708	1960	NS	NS	NS	1	bottom	Note 1
	66	74° 05'	83° 06'	732	1960	NS	NS	NS	1	bottom	Note 1
	69	74° 06.5'	82° 19'	774	1960	NS	NS	NS	1	bottom	Note 1
	72	74° 00.5'	84° 41'	520	1960	NS	NS	NS	1	bottom	Note 1
	74	74° 01'	84° 03'	638	1960	NS	NS	NS	1	bottom	Note 1
	78	74° 01.5'	82° 50'	788	1960	NS	NS	NS	1	bottom	Note 1
	82	73° 56'	85° 00'	372	1960	NS	NS	NS	1	bottom	Note 1
	84	73° 56'	84° 21'	432	1960	NS	NS	NS	1	bottom	Note 1
	86	73° 56.5	83° 38'	416	1960	NS	NS	NS	1	bottom	Note 1
	89	73° 57'	82° 48'	700	1960	NS	NS	NS	1	bottom	Note 1
	91	73° 58'	82° 18'	700	1960	NS	NS	NS	1	bottom	Note 1
	93	73° 51.5'	84° 20'	288	1960	NS	NS	NS	1	bottom	Note 1
	96	73° 52.2'	83° 20'	324	1960	NS	NS	NS	1	bottom	Note 1
	99	73° 53'	82° 30'	344	1960	NS	NS	NS	1	bottom	Note 1
	101	73° 54'	82° 03'	316	1960	NS	NS	NS	1	bottom	Note 1
	104	73° 48'	84° 00'	344	1960	NS	NS	NS	1	bottom	Note 1
	106	73° 48'	83° 20'	380	1960	NS	NS	NS	1	bottom	Note 1
	108	73° 43.5'	84° 40'	328	1960	NS	NS	NS	1	bottom	Note 1
	111	73° 43.5'	83° 34'	456	1960	NS	NS	NS	1	bottom	Note 1
	113	73° 39.5'	84° 20'	684	1960	NS	NS	NS	1	bottom	Note 1
61-0004	78	74° 28.5'	115° 05.0'	485	1961	Aug.	28	1900	12	400	
	80	74° 31.0'	115° 33.0'	483	1961	Aug.	29	1854	13	450	
	82	74° 28.2'	115° 30.8'	474	1961	Aug.	29	2306	7	100	
	83	74° 27.0'	115° 30.0'	491	1961	Aug.	31	0600	13	450	
	85	74° 21.3'	115° 18.2'	494	1961	Sept.	1	2100	13	450	
	86	74° 22.0'	115° 09.0'	488	1961	Sept.	2	1448	13	450	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
61-0004 (cont'd)	87	74° 25.3'	111° 54.5'	329	1961	Sept.	4	2124	11	300	
	90	74° 30.0'	94° 30.0'	155	1961	Sept.	7	0400	8	140	
	92	74° 17.0'	94° 30.0'	184	1961	Sept.	7	0900	8	150	
	101	74° 19.0'	91° 55.0'	228	1961	Sept.	8	0200	9	200	
	102	74° 23.0'	91° 55.0'	311	1961	Sept.	8	0418	10	250	
	103	74° 24.5'	87° 10.0'	454	1961	Sept.	9	0612	12	400	
	104	74° 12.0'	87° 12.0'	446	1961	Sept.	9	0818	12	400	
	105	74° 02.0'	87° 11.0'	485	1961	Sept.	9	1012	13	450	
	108	72° 40.0'	91° 26.0'	333	1961	Sept.	11	1624	11	297	
	110	72° 34.0'	90° 25.0'	346	1961	Sept.	11	2012	11	300	
	111	72° 33.0'	89° 59.0'	79	1961	Sept.	11	2148	6	68	
	114	73° 12.5'	90° 08.0'	508	1961	Sept	12	0536	12	500	
	116	73° 17.0'	90° 58.0'	285	1961	Sept.	12	0912	10	250	
	123	74° 04.0'	87° 10.0'	419	1961	Sept.	13	1512	12	396	
	124	74° 13.0'	87° 10.0'	430	1961	Sept.	13	1724	12	400	
	130	73° 48.5'	82° 42.5'	622	1961	Sept.	14	1212	14	600	
	131	74° 01.0'	82° 42.5'	686	1961	Sept.	14	1530	15	650	
	132	74° 15.0'	82° 44.0'	793	1961	Sept.	14	1854	13	500	
	133	74° 28.5'	82° 47.0'	662	1961	Sept.	14	2206	14	587	
62-0005 A	1	74° 36.0'	94° 13.0'	55	1962	June	28	2006	9	50	
	1	74° 36.0'	94° 13.0'	52	1962	July	6	2300	9	50	
	1	74° 36.0'	94° 13.0'	62	1962	July	13	1524	9	50	
	1	74° 36.0'	94° 13.0'	60	1962	July	25	0236	9	50	
	1	74° 36.0'	94° 13.0'	55	1962	Aug.	7	0106	9	50	
	1	74° 36.0'	94° 13.0'	41	1962	Aug.	14	1818	9	40	
62-0005 B	2	72° 45.0'	94° 04.0'	34	1962	June	23	2300	8	33	
	2	72° 45.0'	94° 04.0'	34	1962	June	30	1748	8	33	
	2	72° 45.0'	94° 04.0'	34	1962	July	14	2130	9	32	
	2	72° 45.0'	94° 04.0'	46	1962	July	21	1848	9	45	
	2	72° 45.0'	94° 04.0'	46	1962	July	29	0018	11	45	
	2	72° 45.0'	94° 04.0'	41	1962	Aug.	4	1618	10	40	
	2	72° 45.0'	94° 04.0'	31	1962	Aug.	11	1724	9	30	
	3	72° 45.3'	94° 06.0'	35	1962	June	27	2248	9	34	
	8	72° 45.5'	94° 04.5'	44	1962	July	3	1830	2	43	
	32	72° 46.0'	94° 17.0'	62	1962	Aug.	13	1930	1	61	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
62-0005 C	80	69° 07.0'	105° 10.0'	50	1962	Sept.	7	1200	2	49	Note 4
62-0006	9	74° 23.0'	92° 00.0'	300	1962	Aug.	7	0406	10	250	
	63	71° 56.0'	95° 32.0'	258	1962	Sept.	3	1536	9	200	
	69	72° 58.0'	102° 54.0'	348	1962	Sept.	6	2242	11	330	
62-0009	11	69° 10'	106° 20'	NS	1962	Aug.	27	NS	1	0	
65-0002	1	69° 06.3'	105° 02.2'	39	1965	July	29	NS	8	38	
	1	69° 06.3'	105° 02.2'	41	1965	Aug.	5	NS	8	40	
	2	69° 06.1'	105° 06.0'	73	1965	Aug.	4	NS	8	70	
	4	68° 20.0'	107° 38.0'	13	1965	Aug.	10	NS	4	12	
	8	68° 18.2'	109° 15.0'	123	1965	Aug.	23	NS	9	120	
	9	69° 10.0'	105° 50.0'	51	1965	Aug.	27	NS	7	50	
	10	69° 07.0'	105° 01.0'	43	1965	Aug.	28	NS	7	42	
	13	69° 06.3'	105° 04.8'	57	1965	Sept.	5	NS	7	50	
66-0004	49	74° 08.9'	81° 22.0'	786	1966	Aug.	6	0530	13	755	
	50	74° 02.0'	81° 08.0'	748	1966	Aug.	6	0818	13	710	
	55	74° 09.2'	81° 27.4'	784	1966	Aug.	6	2218	12	706	
	56	74° 01.9'	81° 08.5'	757	1966	Aug.	7	0048	12	691	
66-0005	1	69° 09.6'	105° 51.3'	55	1966	Aug.	2	NS	6	50	
	2	69° 09.5'	105° 52.7'	56	1966	Aug.	11	NS	6	50	
	2	69° 09.5'	105° 52.7'	51	1966	Aug.	17	NS	6	50	
	2	69° 09.5'	105° 52.7'	54	1966	Aug.	24	NS	6	50	
67-0001 A	1	69° 09.5'	105° 52.7'	54	1967	Aug.	17	NS	7	49	
	1	69° 09.5'	105° 52.7'	51	1967	Aug.	24	NS	7	50	
	1	69° 09.5'	105° 52.7'	51	1967	Sept.	1	NS	7	50	
	1	69° 09.5'	105° 52.7'	54	1967	Sept.	7	NS	7	50	
67-0001 B	1	69° 08.7'	105° 53.0'	50	1967	July	2	NS	6	47	
	1	69° 08.7'	105° 53.0'	50	1967	July	8	NS	7	45	
	3	69° 08.0'	105° 57.0'	31	1967	July	16	NS	6	30	
	4	69° 08.6'	105° 53.0'	44	1967	July	29	NS	7	43	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
68-0001	13	73° 40.0'	81° 23.0'	NS	1968	Aug.	24	0330	12	350	
	14	74° 10.0'	85° 59.4'	NS	1968	Aug.	24	1254	13	500	
	15	74° 38.5'	109° 47.5'	NS	1968	Aug.	30	0000	10	175	
	16	74° 18.0'	110° 00.0'	NS	1968	Aug.	31	0330	13	500	
	17	74° 27.0'	113° 48.0'	NS	1968	Aug.	31	1100	12	325	
	18	74° 22.3'	114° 36.0'	NS	1968	Aug.	31	2230	13	450	
70-0010	Lancaster Sound	74° 10'	84° 00'	NS	1970	May	NS	NS	NS		Note 1, 5
71-0009	Spence Bay	69° 30'	93° 30'	NS	1971	Nov.	NS	NS	NS		Note 1, 6
	Spence Bay	69° 30'	93° 30'	NS	1971	Dec.	NS	NS	NS		Note 1, 7
71-0016	Resolute Bay	74° 42'	94° 50'	11.3	1971	Sept.	NS	NS	3	10	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1971	Oct.	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1971	Nov.	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1971	Dec.	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	Jan.	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	Feb.	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	March	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	April	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	May	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	June	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	July	NS	NS	1	0	Note 8, 9
	Resolute Bay	74° 42'	94° 50'	11.3	1972	Aug.	NS.	NS	1	0	Note 8, 9

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
72-0011	1	74° 21.0'	90° 42.0'	200	1972	Sept.	27	2237	12	200	
	2	74° 44.5'	93° 14.0'	130	1972	Sept.	28	1700	9	130	
	3	74° 45.0'	92° 44.0'	100	1972	Sept.	28	1908	7	100	
	4	74° 46.0'	92° 10.0'	60	1972	Sept.	28	2030	7	60	
	5	74° 06.5'	91° 38.0'	150	1972	Sept.	29	1519	10	150	
	6	74° 21.6'	91° 19.0'	170	1972	Sept.	29	2250	11	170	
	7	74° 35.0'	91° 23.0'	100	1972	Sept.	30	0100	7	100	
	SED-1	74° 30.1'	91° 34.5'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-2	74° 30.0'	91° 34.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-3	74° 29.0'	91° 34.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-4	74° 29.5'	91° 32.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-5	74° 31.5'	91° 32.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-6	74° 21.5'	91° 19.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-7	74° 21.0'	90° 42.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-8	74° 20.2'	91° 55.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-9	74° 15.2'	92° 09.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-10	74° 14.2'	91° 58.0'	NS	1972	Sept.	NS	NS	1	bottom	
	SED-11	74° 07.4'	91° 35.0'	NS	1972	Sept.	NS	NS	1	bottom	
72-0016	Resolute Bay	74° 42'	94° 50'	NS	1972	NS	NS	NS	NS		Note 1, 7
	12	74° 42'	94° 53'	NS	1972	June	NS	NS	NS		Note 10
72-0017	8	74° 20.0'	88° 30.0'	NS	1972	Aug.	20	NS	1	0	
	9	74° 30.0'	94° 05.0'	NS	1972	Aug.	20	NS	1	0	
73-0005	1	74° 27.8'	90° 57.0'	188	1973	Aug.	6	0830	10	170	
	2	74° 19.5'	90° 53.0'	229	1973	Aug.	6	1012	10	220	
	3	74° 14.8'	91° 00.0'	351	1973	Aug.	6	1130	12	330	
	4	74° 09.2'	90° 58.0'	245	1973	Aug.	6	1354	11	220	
	5	74° 05.0'	90° 58.0'	164	1973	Aug.	6	1530	9	140	
73-0006	BA 1	74° 30'	91° 21'	155	1973	April			9	150	Note 11

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
73-0009 A	18	74° 18.0'	86° 28.0'	NS	1973	Aug.	7	NS	1	0	
	19	74° 37.0'	88° 45.0'	NS	1973	Sept.	19	NS	1	0	
73-0009 B	MB-T20	74° 39.5'	88° 42.7'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-Z20	74° 39.6'	88° 31.7'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-T23	74° 41.1'	88° 44.2'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-W23	74° 41.1'	88° 38.0'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-Z23	74° 41.1'	88° 32.5'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-R24	74° 41.6'	88° 48.0'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-T26	74° 42.7'	88° 44.2'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-W26	74° 42.8'	88° 38.0'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-T29	74° 43.6'	88° 44.1'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-W29	74° 44.3'	88° 38.6'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-Z29	74° 44.3'	88° 31.6'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-BB30	74° 45.0'	88° 28.1'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-W32	74° 45.9'	88° 38.5'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-Z46	74° 53.4'	88° 33.3'	NS	1973	NS	NS	NS	1	bottom	Note 12
	MB-S00	74° 26.9'	88° 44.5'	282	1973	Sept.	19	0345	1	bottom	
	MB-S04	74° 29.1'	88° 44.5'	174	1973	Sept.	19	0414	1	bottom	
	MB-S08	74° 31.7'	88° 44.5'	106	1973	Sept.	19	0445	1	bottom	
	MB-S12	74° 34.2'	88° 44.5'	146	1973	Sept.	19	0511	1	bottom	
	MB-S16	74° 36.8'	88° 44.5'	121	1973	Sept.	19	0535	1	bottom	
	MB-016	74° 36.8'	88° 53.0'	128	1973	Sept.	19	0600	1	bottom	
	MB-012	74° 34.2'	88° 53.0'	119	1973	Sept.	19	0620	1	bottom	
	MB-008	74° 31.7'	88° 53.0'	117	1973	Sept.	19	0641	1	bottom	
	MB-004	74° 29.1'	88° 53.0'	179	1973	Sept.	19	0705	1	bottom	
	MB-K04	74° 29.1'	89° 02.5'	198	1973	Sept.	19	0735	1	bottom	
	MB-G04	74° 29.1'	89° 12.0'	227	1973	Sept.	19	0810	1	bottom	
	MB-G08	74° 31.7'	89° 12.0'	68	1973	Sept.	19	0840	1	bottom	
	MB-K08	74° 31.7'	89° 02.5'	117	1973	Sept.	19	0915	1	bottom	
	MB-K12	74° 34.2'	89° 02.5'	90	1973	Sept.	19	0945	1	bottom	
	MB-K16	74° 36.8'	89° 02.5'	86	1973	Sept.	19	1015	1	bottom	
	LS-1	74° 27'	88° 18'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-2	74° 22'	88° 18'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-3	74° 17'	88° 16'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-4	74° 12'	88° 16'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-5	74° 08'	88° 19'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-6	74° 02.5'	88° 15.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
73-0009 B (cont'd)	LS-7	73° 57'	88° 13'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-8	74° 30.5'	89° 21.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-9	74° 26'	89° 25'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-10	74° 20.5'	89° 20'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-11	74° 15'	89° 21.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-12	74° 11'	89° 20'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-13	74° 06'	89° 20'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-14	74° 01'	89° 21'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-15	73° 55'	89° 20.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-16	74° 20'	87° 58'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-17	74° 14.3'	87° 56.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-18	74° 09.5'	87° 56.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-19	74° 05.1'	87° 56'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-20	74° 00'	87° 58'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-21	73° 54.8'	87° 59'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-22	73° 49'	87° 58'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-23	73° 45'	87° 58'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-24	74° 28.5'	88° 38'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-25	74° 24'	88° 38'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-26	74° 19'	88° 38'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-27	74° 14'	88° 38'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-28	74° 09.2'	88° 38'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-29	73° 55.1'	86° 05.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-30	73° 56.5'	86° 42'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-31	73° 57.2'	87° 29'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-32	73° 51.8'	86° 58'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-33	73° 56'	86° 59'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-34	74° 01.5'	86° 58.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-35	74° 04.5'	86° 58.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-36	74°10.5'	86° 59'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-37	74° 16'	86° 58.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-38	74° 21'	86° 55'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-39	74° 49.6'	87° 36'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-40	73° 54'	87° 36'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-41	73° 59.1'	87° 39'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-42	73° 52.8'	87° 30'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-43	73° 53'	87° 14.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-44	73° 58'	87° 13'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-45	73° 55.3'	87° 25'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
73-0009 B (cont'd)	LS-46	NS	NS	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-47	74° 26'	88° 58'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-48	74° 20.8'	88° 56'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-49	74° 15.2'	88° 55'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-50	74° 10.8'	88° 55'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-51	74° 06'	88° 56'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-52	74° 00.9'	88° 54'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-53	73° 55.3'	88° 52'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-54	74° 05.1'	87° 59'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-55	74° 09.8'	87° 59.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-56	74° 14.4'	87° 59.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-57	74° 19.5'	87° 59.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-59	74° 26.3'	88° 17'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-61	74° 25.4'	89° 49'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-62	74° 20'	89° 50'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-63	74° 14.3'	89° 49'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-64	74° 09.4'	89° 50'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-65	74° 04.5'	89° 48'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-66	73° 59'	89° 49'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-68	73° 52'	88° 15'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-69	73° 47.5'	88° 15'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-70	74° 25'	87° 37'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-71	74° 20'	87° 37'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-72	74° 14.4'	87° 37.5'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-73	73° 10'	87° 36'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-74	74° 05.2'	87° 35'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-75	73° 49'	88° 38'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-76	73° 53.5'	88° 37'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-77	73° 58.7'	88° 36'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
	LS-78	74° 04'	88° 39'	NS	1973	NS	NS	NS	1	bottom	Note 1, 12
73-0010	Resolute Bay	74° 42'	94° 50'	11.3	1973	May	8	NS	1	ice bottom	Note 1, 8
	Resolute Bay	74° 42'	94° 50'	11.3	1973	May	13	NS	1	ice bottom	Note 1, 8
73-0011	2	74° 15.5'	87° 03.5'	NS	1973	Aug.	15	NS	1	0	
	4	74° 20.5	86° 42.0'	NS	1973	Aug.	18	NS	1	0	
	5	74° 24.5'	82° 30.0'	NS	1973	Aug.	18	NS	1	0	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
74-0013 A	59	73° 54.0'	82° 42.9'	NS	1974	Aug.	15	NS	1	0	
	99	73° 52.2'	86° 06.9'	NS	1974	Aug.	25	NS	1	0	
	144	73° 31.7'	96° 20.9'	NS	1974	Aug.	30	NS	1	0	
74-0013 B	66	74° 19.1'	91° 08.9'	NS	1974	Aug.	20	1230	1	bottom	
	69	74° 21.2'	91° 33.1'	NS	1974	Aug.	20	2145	1	bottom	
	79	74° 12.1'	89° 18.5'	NS	1974	Aug.	21	2313	1	bottom	
	81	73° 54.0'	88° 33.3'	NS	1974	Aug.	22	1455	1	bottom	
	82	73° 53.7'	88° 27.9'	NS	1974	Aug.	22	1520	1	bottom	
	86	74° 11.3'	89° 31.0'	NS	1974	Aug.	22	2305	1	bottom	
	87	74° 09.9'	89° 25.8'	NS	1974	Aug.	23	0025	1	bottom	
	89	74° 26.9'	86° 20.9'	NS	1974	Aug.	23	1800	1	bottom	
	96	74° 45.5'	83° 14.0'	NS	1974	Aug.	24	1640	1	bottom	
	97	74° 27.6'	83° 30.5'	NS	1974	Aug.	24	2013	1	bottom	
	101	74° 19.2'	92° 37.9'	NS	1974	Aug.	26	2227	1	bottom	
	103	74° 28.2'	92° 34.0'	NS	1974	Aug.	27	0007	1	bottom	
	104	74° 37.8'	92° 30.4'	NS	1974	Aug.	27	0114	1	bottom	
	112	74° 25.5'	94° 17.7'	NS	1974	Aug.	28	0305	1	bottom	
	114	74° 15.8'	95° 55.1'	NS	1974	Aug.	28	0805	1	bottom	
	115	74° 27.3'	97° 43.8'	NS	1974	Aug.	28	1550	1	bottom	
	118	74° 24.1'	97° 45.0'	NS	1974	Aug.	28	1809	1	bottom	
	120	74° 20.9'	97° 44.6'	NS	1974	Aug.	28	1905	1	bottom	
	122	74° 17.8'	97° 43.9'	NS	1974	Aug.	28	2112	1	bottom	
	123	74° 15.2'	97° 43.9'	NS	1974	Aug.	28	2204	1	bottom	
	125	74° 11.9'	97° 43.9'	NS	1974	Aug.	28	2344	1	bottom	
	126	74° 08.7'	97° 45.0'	NS	1974	Aug.	29	0100	1	bottom	
	127	74° 09.5'	97° 14.8'	NS	1974	Aug.	29	1306	1	bottom	
	130	74° 09.2'	96° 57.8'	NS	1974	Aug.	29	2030	1	bottom	
	134	74° 08.4'	96° 53.9'	NS	1974	Aug.	29	2157	1	bottom	
	136	73° 50.0'	96° 03.3'	NS	1974	Aug.	30	0322	1	bottom	
	138	73° 32.1'	96° 18.4'	NS	1974	Aug.	30	1200	1	bottom	
	146	73° 33.5'	96° 52.5'	NS	1974	Aug.	30	1640	1	bottom	
	148	73° 33.6'	97° 06.3'	NS	1974	Aug.	30	1800	1	bottom	
	151	73° 31.5'	96° 03.0'	NS	1974	Aug.	30	2322	1	bottom	
	153	73° 29.8'	95° 47.5'	NS	1974	Aug.	31	0117	1	bottom	
74-0014 A	1	74° 40'	97° 30'	NS	1974	May	7	NS	3	30	Note 1
	1	74° 40'	97° 30'	NS	1974	May	7	NS	7	1.4	Note 1, 21

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
74-0014 B	Cunningham Inlet	74° 10'	93° 40'	NS	1974	Aug.	14-27	NS	1	0	Note 13
74-0015	1	72° 57'	84° 34'	55	1974	Aug.	8	2000	6	bottom	Note 1
	1-A	72° 56.5'	84° 33.5'	NS	1974	Aug.	7	NS	2	bottom	Note 1
	2	72° 56.5'	84° 25'	89	1974	Aug.	9	0300	7	bottom	Note 1
	3	72° 59'	84° 23.5'	54	1974	Aug.	10	1500	6	bottom	Note 1
	4	73° 01.5'	84° 22'	86	1974	Aug.	10	1545	7	bottom	Note 1
	5	72° 58.5'	84° 37.5'	84	1974	Aug.	11	2030	6	bottom	Note 1
	6	73° 00'	84° 37.5'	165	1974	Aug.	18	0300	8	bottom	Note 1
	6-A	73° 01'	84° 37.3'	187	1974	Aug.	9	1915	9	bottom	Note 1
	7	73° 03'	84° 37'	243	1974	Aug.	9	2100	10	bottom	Note 1
	8	73° 06'	84° 36.5'	175	1974	Aug.	9	2400	7	bottom	Note 1
	9	73° 03.5'	84° 43'	247	1974	Aug.	18	1300	9	bottom	Note 1
	9-A	73° 02'	84° 42.8'	293	1974	Aug.	18	1445	11	bottom	Note 1
	10	73° 05'	84° 50.5'	304	1974	Aug.	10	0200	11	bottom	Note 1
	11	73° 10.5'	84° 59'	140	1974	Aug.	20	2100	1	bottom	Note 1
	12	73° 11.5'	84° 58'	200	1974	Aug.	20	1945	1	bottom	Note 1
	13	73° 15'	84° 54'	211	1974	Aug.	19	2230	10	bottom	Note 1
	14	73° 16.5'	84° 53'	147	1974	Aug.	10	1915	7	bottom	Note 1
	Strathcona Sound	NS	NS	NS	1974	Aug.	NS	NS			Note 14, 20
	Strathcona Sound	NS	NS	NS	1974	Aug.	NS	NS			Note 15, 20
	Strathcona Sound	NS	NS	NS	1974	Aug.	NS	NS			Note 16, 20
	Strathcona Sound	NS	NS	NS	1974	Aug.	NS	NS			Note 17, 20
	Shore-1	72° 56'	84° 26'	NS	1974	Aug.	NS	NS			Note 1, 18
	Shore-2	72° 57'	84° 31'	NS	1974	Aug.	NS	NS			Note 1, 18
	Shore-3	72° 58'	84° 33'	NS	1974	Aug.	NS	NS			Note 1, 19
	Shore-4	72° 58'	84° 37'	NS	1974	Aug.	NS	NS			Note 1, 19
74-0023	1	74° 47'	97° 47'	NS	1974	May	NS	NS	7	1.4	Note 21

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
74-0024	22	74° 31.0'	93° 00.0'	NS	1974	Aug.	31	NS	1	0	
	23	73° 47.0'	82° 23.0'	NS	1974	Sept.	15	NS	1	0	
74-0026	Strathcona Sound	73° 07'	84° 45'	NS	1974	NS	NS	NS	1	5	Note 22
	3	72° 56.5'	84° 33.5'	NS	1974	Sept.	NS	NS	1	bottom	Note 1
75-0013	4	72° 46'	93° 29.8'	7	1975	Aug.	2	NS	1	0	Note 1
	8	72° 45.3'	93° 30'	16	1975	Aug.	2	NS	2	10	Note 1
	7	72° 44.9'	93° 30.4'	88	1975	Aug.	2	NS	3	50	Note 1
	14	72° 46.3'	93° 24.5'	3	1975	Aug.	3	NS	2	2	Note 1
	60	73° 59.9'	94° 18.5'	1	1975	Aug.	19	NS	1	0	Note 1
	62	73° 58.8'	94° 18.5'	25	1975	Aug.	19	NS	3	10	Note 1
	69	73° 58.4'	94° 18.5'	46	1975	Aug.	25	NS	5	40	Note 1
75-0029	2	74° 55.0'	97° 39'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	4	74° 51.7'	97° 33'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	5	74° 49.0'	97° 35'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	6	74° 46.7'	97° 33'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	7	74° 45.2'	97° 31'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	8	74° 44.0'	97° 31'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	9	74° 42.9'	97° 28'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	10	74° 25.2'	98° 43'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	11	74° 27.1'	98° 28'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	12	74° 13.9'	99° 01'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	13	74° 43.0'	98° 04'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	14	74° 44.1'	97° 58'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	15	74° 46.0'	97° 58'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	18	74° 48.5'	98° 12'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	19	74° 48.8'	98° 15'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	20	74° 49.1'	98° 15'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	21	74° 49.9'	98° 19'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	22	74° 50.2'	98° 24'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	23	74° 53.0'	98° 25'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	26	74° 55.8'	98° 42'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	27	74° 54.0'	98° 46'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	28	74° 52.7'	98° 48'	NS	1975	Sept.		NS	1	bottom	Note 1, 23

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
75-0029 (cont'd)	29	74° 51.1'	98° 53'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	31	74° 48.0'	98° 59'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	32	74° 47.0'	99° 00'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	33	74° 45.6'	99° 04'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	36	74° 52.1'	99° 55'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	37	74° 52.5'	99° 35'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	38	74° 52.2'	99° 08'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	39	74° 52.0'	98° 48'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	41	74° 51.8'	98° 11'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	45	74° 57.5'	97° 55'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	46	74° 55.3'	97° 55'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	47	74° 52.0'	97° 56'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	48	74° 49.0'	97° 56'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	49	74° 46.0'	97° 54'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	50	74° 43.0'	97° 55'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	51	74° 40.0'	97° 55'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	52	74° 37.0'	97° 56'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	53	74° 34.0'	97° 56'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	54	74° 33.5'	98° 05'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	55	74° 34.0'	98° 17'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	56	74° 36.5'	98° 18'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	57	74° 40.0'	98° 18'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	58	74° 42.5'	98° 18'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	59	74° 42.5'	98° 28'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	61	74° 40.0'	98° 38'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	62	74° 37.0'	98° 38'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	63	74° 34.6'	98° 37'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	64	74° 39.3'	98° 59'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	65	74° 42.0'	98° 59.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	66	74° 45.0'	98° 59.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	67	74° 48.4'	98° 57'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	68	74° 50.0'	99° 00'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	69	74° 53.0'	99° 15'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	70	74° 54.0'	99° 20'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	71	74° 51.0'	99° 19'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	72	74° 47.5'	99° 22'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	73	74° 46.5'	99° 21'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	75	73° 03.8'	84° 22'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	76	73° 04.2'	84° 21'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	77	73° 04.7'	84° 20'	NS	1975	Sept.		NS	1	bottom	Note 1, 23

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
75-0029 (cont'd)	78	73° 05.3'	84° 19'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	79	73° 05.5'	84° 18'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	80	73° 04.4'	84° 29'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	81	73° 05.1'	84° 28.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	82	73° 05.5'	84° 28.0'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	83	73° 06.0'	84° 27.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	84	73° 06.5'	84° 27.0'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	85	73° 06.2'	84° 34'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	86	73° 05.1'	84° 41'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	87	73° 05.5'	84° 40.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	88	73° 06.0'	84° 39.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	89	73° 06.5'	84° 39'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	90	73° 07.0'	84° 38.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	91	73° 07.4'	84° 38'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	92	73° 07.0'	84° 43'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	93	73° 06.6'	84° 48'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	94	74° 06.4'	84° 52.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	95	73° 06.8'	84° 52'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	96	73° 07.2'	84° 50.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	97	73° 07.5'	84° 49.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	98	73° 07.8'	84° 48.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	99	73° 08.7'	84° 47'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	100	73° 09.5'	84° 55'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	101	73° 09.0'	84° 57'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	102	73° 09.3'	85° 08'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	103	73° 10.1'	85° 07.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	104	73° 11.1'	85° 07'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	105	73° 12.4'	85° 06'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	106	73° 03.6'	84° 09'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	107	73° 03.1'	84° 03'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	108	73° 03.2'	83° 56.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	109	73° 02.3'	83° 50'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	110	73° 01.0'	83° 45'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	111	73° 00.0'	83° 39'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	113	74° 56.5'	99° 00'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	114	74° 56.5'	98° 54'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	115	74° 54.5'	98° 54'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	116	74° 52.0'	98° 54.5'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	117	74° 52.2'	99° 00'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	118	74° 54.5'	99° 00'	NS	1975	Sept.		NS	1	Bottom	Note 1, 23

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
75-0029 (cont'd)	120	74° 50.0'	99° 44'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	122	74° 55.0'	99° 44'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	126	74° 51.0'	98° 38'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
	127	74° 56.0'	98° 22'	NS	1975	Sept.		NS	1	bottom	Note 1, 23
75-0030	1	72° 57'	84° 31.8'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	2	72° 58'	84° 33'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	3	72° 58'	84° 33.8'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	4	72° 57.3'	84° 34.1'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	5	72° 57'	84° 30'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	6	72° 59'	84° 28.9'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	7	73° 00.5'	84° 28'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	8	73° 03'	84° 26.8'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	9	72° 58'	84° 31.2'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	10	73° 00'	84° 33.5'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	11	73° 06'	84° 36'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	12	73° 01'	84° 37'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	13	73° 02.5'	84° 39.5'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	14	73° 02.5'	84° 45'	NS	1975	Aug.	NS	NS	1	bottom	Note 1
	1	72° 57'	84° 31.8'	NS	1975	Sept.	NS	NS	1	bottom	Note 1
	2	72° 58'	84° 33'	NS	1975	Sept.	NS	NS	1	bottom	Note 1
	4	72° 57.3'	84° 34.1'	NS	1975	Sept.	NS	NS	1	bottom	Note 1
	5	72° 57'	84° 30'	NS	1975	Sept.	NS	NS	1	bottom	Note 1
	7	73° 00.5'	84° 28'	NS	1975	Sept.	NS	NS	1	bottom	Note 1
	8	73° 03'	84° 26.8'	NS	NS	Sept.	NS	NS	1	bottom	Note 1
	Biota-3	72° 56.5'	84° 33.5'	NS	1975	Aug.	NS	NS			Note 24
75-0031 A	Hole	73° 07.5'	84° 51.5'	300	1975	Mar.	NS	NS	NS	NS	Note 1, 25
	In-sill	73° 17.5'	84° 57.0'	220	1975	Mar.	NS	NS	NS	NS	Note 1, 25
	Out-sill	73° 19'	85° 00'	280	1975	Mar.	NS	NS	NS	NS	Note 1, 25
75-0031 B	Hole	73° 07.5'	84° 51.5'	300	1975	June	NS	NS	11	275	Note 1
	Hole	73° 07.5'	84° 51.5'	300	1975	Aug.	NS	NS	6	275	Note 1
	In-sill	73° 17.5'	84° 57.0'	220	1975	Aug.	NS	NS	8	185	Note 1
	Out-sill	73° 19'	85° 00'	280	1975	Aug.	NS	NS	10	275	Note 1
	Strathcona Sound	73° 11'	85° 10'	NS	1975	Aug.	NS	NS		120-300	Note 26, 27
	Strathcona Sound	73° 11'	85° 10'	NS	1975	Aug.	NS	NS		285-290	Note 26, 28

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
75-0031 B (cont'd)	Strathcona Sound	73° 11'	85° 10'	NS	1975	Aug.	NS	NS		175-180	Note 26, 29
	Strathcona Sound	73° 11'	85° 10'	NS	1975	Aug.	NS	NS		285-290	Note 26, 30
	0.1	72° 55'	84° 26.5'	NS	1975	Aug.	NS	NS		1-2	Note 1, 31
	1	72° 57'	84° 33.5'	NS	1975	Aug.	NS	NS		1-2	Note 1, 32
	2	72° 58'	84° 38'	NS	1975	Aug.	NS	NS		1-2	Note 1, 33
	7	73° 00'	84° 45.5'	NS	1975	Aug.	NS	NS		1-2	Note 1, 34
	15	73° 18'	84° 52'	NS	1975	Aug.	NS	NS		1-2	Note 1, 35
	18	73° 11.5'	85° 03'	NS	1975	Aug.	NS	NS		1-2	Note 1, 36
75-0033	Aston Bay	73° 40'	95° 00'	NS	1975	NS	NS	NS			Note 1, 37
	Aston Bay	73° 40'	95° 00'	NS	1975	NS	NS	NS			Note 1, 38
76-0007	2	69° 54'	84° 16'	164	1976	May	21	1457	10	160	
76-0008	EM	74° 06'	81° 30'	786	1976	July	22	NS	5	150	
	EM	74° 06'	81° 30'	786	1976	Aug.	5	NS	6	300	
	EM	74° 06'	81° 30'	786	1976	Aug.	19	NS	16	700	
	EM	74° 06'	81° 30'	786	1976	Aug.	29	NS	6	300	
	EM	74° 06'	81° 30'	786	1976	Sept.	11	NS		300	
	CS	74° 32'	80° 20'	668	1976	July	23	NS	,	150	
	CS	74° 32'	80° 20'	668	1976	Aug.	4	NS	6	300	
	CSA	74° 25'	80° 18'	722	1976	Aug.	16	NS	16	675	
	CS	74° 32'	80° 20'	668	1976	Aug.	28	NS	6	300	
	CS	74° 32'	80° 20'	668	1976	Sept.	8	NS	6	300	
	CW	74° 27'	82° 03'	686	1976	July	24	NS	5	150	
	CW	74° 27'	82° 03'	686	1976	Aug.	3	NS	6	300	
	CW	74° 27'	82° 03'	686	1976	Aug.	17	NS	16	650	
	CW	74° 27'	82° 03'	686	1976	Aug.	27	NS	6	300	
	CW	74° 27'	82° 03'	686	1976	Sept.	7	NS	6	300	
	NB	73° 43'	81° 02'	503	1976	July	26	NS	5	150	
	NB	73° 43'	81° 02'	503	1976	Aug.	7	NS	6	300	
	NB	73° 43'	81° 02'	503	1976	Aug.	20-21	NS	14	300	
	NB	73° 43'	81° 02'	503	1976	Aug.	31	NS	6	300	
	NB	73° 43'	81° 02'	503	1976	Sept.	12	NS	6	300	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
76-0008 (cont'd)	MM	74° 07'	82° 37'	741	1976	July	27	NS	5	150	
	MM	74° 07'	82° 37'	741	1976	Aug.	6	NS	6	300	
	MM	74° 07'	82° 37'	741	1976	Aug.	18	NS	16	650	
	MM	74° 07'	82° 37'	741	1976	Aug.	29	NS	6	300	
	MM	74° 07'	82° 37'	741	1976	Sept.	11	NS	6	300	
	WM	74° 12'	87° 57'	430	1976	July	28	NS	5	150	
	WM	74° 12'	87° 57'	430	1976	Aug.	8	NS	6	300	
	WM	74° 12'	87° 57'	430	1976	Aug.	22	NS	7	400	
	WM	74° 12'	87° 57'	430	1976	Sept.	1	NS	6	300	
	WM	74° 12'	87° 57'	430	1976	Sept.	13	NS	6	300	
76-0009	Cunningham Inlet	74° 07'	93° 50'	NS	1976	July		NS	NS	NS	Note 1, 39
	X	74° 08.5'	93° 53'	NS	1976	July	21	NS	NS	NS	Note 1
	X	74° 08.5'	93° 53'	NS	1976	July	26	NS	3	4	Note 1
	Y	74° 08.3'	93° 52.5'	NS	1976	July	21	NS	NS	NS	Note 1
	Y	74° 08.3'	93° 52.5'	NS	1976	July	26	NS	3	5	Note 1
	Z	74° 08.1'	93° 52'	NS	1976	July	21	NS	NS	NS	Note 1
	Z	74° 08.1'	93° 52'	NS	1976	July	26	NS	2	2	Note 1
	Delta	74° 05'	93° 47.5'	NS	1976	July	30	NS	2	16	Note 1
	1.1 km north of Delta	74° 05.6'	93° 47.5'	NS	1976	July	30	NS	2	30	Note 1
	Head	74° 05.4'	93° 47.5'	NS	1976	Aug.	29	NS	NS	NS	Note 1
	Entrance	74° 08.2'	93° 52.'	NS	1976	Aug.	29	NS	NS	NS	Note 1
76-0010	1	74° 40.5'	95° 10'	100	1976	July	5	NS	4	25	Note 1
76-0011 A	1	74° 23.8'	82° 03.5'	664	1976	Aug.	16	1622	15	651	Note 40
	3	74° 07.0'	81° 58.0'	730	1976	Aug.	16	2125	12	700	
	4	73° 49.7'	81° 59.2'	660	1976	Aug.	17	0343	11	620	
	7	74° 30.0'	90° 58.0'	183	1976	Aug.	18	0118	7	160	
	9	74° 16.5'	90° 39.5'	223	1976	Aug.	18	0600	7	200	
76-0011 B	34	73° 04.4'	84° 21.0'	NS	1976	Sept.	1	0255	1	bottom	
	35	73° 05.9'	84° 32.3'	NS	1976	Sept.	1	0638	1	bottom	
	36	73° 08.9'	84° 56.9'	NS	1976	Sept.	1	0740	1	bottom	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
76-0011 B (cont'd)	37	73° 12.6'	85° 09.2'	NS	1976	Sept.	1	0847	1	bottom	
	38	73° 11.6'	85° 10.3'	NS	1976	Sept.	1	0910	1	bottom	
	39	73° 10.4'	85° 02.8'	NS	1976	Sept.	1	0956	1	bottom	
	40	73° 07.5'	84° 51.5'	NS	1976	Sept.	1	1055	1	bottom	
	41	72° 59.0'	83° 39.6'	NS	1976	Sept.	1	1825	1	bottom	
	42	73° 01.7'	83° 48.1'	NS	1976	Sept.	1	1944	1	bottom	
76-0012	Arctic Bay	72° 50'	85° 10'	NS	1976	Aug.	NS	NS	1	bottom	Note 1
	Arctic Bay	72° 50'	85° 10'	NS	1976	Aug.	NS	NS			Note 1, 41
	Arctic Bay	72° 50'	85° 10'	NS	1976	Aug.	NS	NS			Note 1, 42
	3	72° 56.5'	84° 33.5'	NS	1976	May	NS	NS			Note 1, 43
	3	72° 56.5'	84° 33.5'	NS	1976	Aug.	NS	NS			Note 1, 44
	3	72° 56.5'	84° 33.5'	NS	1976	Aug.	NS	NS			Note 1, 45
76-0021	1	74° 12'	87° 56'	NS	1976	July-Aug.	NS	NS			Note 1, 46
	1	74° 12'	87° 56'	NS	1976	July-Aug.	NS	NS			Note 1, 47
	1	74° 12'	87° 56'	NS	1976	July-Aug.	NS	NS			Note 1, 48
	2	74° 30.5'	82° 30'	NS	1976	July-Aug.	NS	NS			Note 1, 49
	3	74° 27'	82° 03'	NS	1976	July-Aug.	NS	NS			Note 1, 50
	4	74° 06.5'	82° 36'	NS	1976	July-Aug.	NS	NS			Note 1, 51
	4	74° 06.5'	82° 36'	NS	1976	July-Aug.	NS	NS			Note 1, 52
	5	74° 06'	81° 30'	NS	1976	July-Aug.	NS	NS			Note 1, 53
	6	73° 45'	80° 57'	NS	1976	July-Aug.	NS	NS			Note 1, 54
76-0022	Barrow Strait	74° 30'	95° 00'	NS	1976	NS	NS	NS			Note 1, 55
	Barrow Strait	74° 30'	95° 00'	NS	1976	NS	NS	NS			Note 1, 56
	Arctic Bay	72° 50'	84° 10'	NS	1976	NS	NS	NS			Note 1, 57
77-0014	30	73° 47.1'	81° 57.7'	483	1977	Sept.	8	1140	18	bottom	
	31	73° 55.0'	82° 00.0'	655	1977	Sept.	8	1415	17	bottom	
	32	74° 09.4'	81° 58.9'	785	1977	Sept.	8	2100	28	764	
	33	74° 36.6'	94° 20.4'	106	1977	Sept.	9	2040	8	101	
	34	74° 27.7'	94° 16.2'	155	1977	Sept.	9	2315	11	bottom	
	35	74° 20.0'	94° 15.8'	174	1977	Sept.	10	0100	18	bottom	
	36	74° 10.7'	94° 14.6'	168	1977	Sept.	10	0335	21	bottom	
	37	73° 58.7'	90° 22.9'	110	1977	Sept.	10	1235	8	106	
	38	74° 07.1'	90° 22.6'	214	1977	Sept.	10	1450	13	bottom	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
77-0014 (cont'd)	39	74° 15.3'	90° 25.9'	232	1977	Sept.	10	1700	14	bottom	
	40	74° 24.1'	90° 22.2'	232	1977	Sept.	10	2000	21	bottom	
	41	74° 33.0'	90° 22.8'	176	1977	Sept.	10	2300	12	173	
	42	74° 10.9'	85° 58.5'	520	1977	Sept.	11	0600	35	bottom	
	43	74° 18.0'	81° 57.7'	732	1977	Sept.	11	1550	20	bottom	
	44	74° 26.3'	81° 58.3'	750	1977	Sept.	11	2300	17	bottom	
77-0015 A	3	71° 50.5'	94° 29.0'	NS	1977	May	23	NS	5	40	Note 1
	3	71° 50.5'	94° 29.0'	NS	1977	May	25	NS	5	40	Note 1
	3	71° 50.5'	94° 29.0'	NS	1977	May	27	NS	5	40	Note 1
77-0015 B	137	71° 46.2'	94° 36'	NS	1977	Sept.	2	NS	1	0	Note 1
	138	71° 46.2'	94° 35.5'	NS	1977	Sept.	2	NS	2	7.5	Note 1
	139	71° 46.2'	94° 33'	NS	1977	Sept.	2	NS	5	40	Note 1
77-0016 A	3	75° 02.1'	108° 45'	NS	1977	June	9	NS	5	40	Note 1
	2	75° 01.3'	108° 44.5'	NS	1977	June	13	NS	5	50	Note 1
	6	75° 01.4'	108° 46.5'	NS	1977	June	14	NS	4	40	Note 1
77-0016 B	1	75° 01.9'	108° 35.8'	NS	1977	Aug.	5	NS	3	15	Note 1
	6	75° 01.4'	108° 36.5'	NS	1977	Aug.	5	NS	4	40	Note 1
	2	75° 01.3'	108° 44.5'	NS	1977	Aug.	6	NS	5	40	Note 1
	4	75° 00'	108° 54'	NS	1977	Aug.	7	NS	5	40	Note 1
	7	75° 04.6'	108° 49'	NS	1977	Aug.	8	NS	4	25	Note 1
	8	75° 04.1'	108° 44'	NS	1977	Aug.	9	NS	3	15	Note 1
	5	74° 58.7'	108° 48.4'	NS	1977	Aug.	11	NS	5	50	Note 1
	2	75° 01.3'	108° 44.5'	NS	1977	Aug.	27	NS	5	40	Note 1
	5	74° 58.7'	108° 48.4'	NS	1977	Aug.	28	NS	3	15	Note 1
	T0.0	75° 04.5'	108° 48.5'	NS	1977	Aug.	15	NS	1	0	Note 1
	T0.5	75° 04'	108° 49'	NS	1977	Aug.	15	NS	1	0	Note 1
	T1.0	75° 03.5'	108° 49.5'	NS	1977	Aug.	15	NS	1	0	Note 1
	T1.5	75° 03.1'	108° 49.9'	NS	1977	Aug.	15	NS	1	0	Note 1
	T2.0	75° 02.5'	108° 50.1'	NS	1977	Aug.	15	NS	1	0	Note 1
	T2.5	75° 02.1	108° 50.5'	NS	1977	Aug.	15	NS	1	0	Note 1

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
77-0016 B (cont'd)	T3.0	75° 01.6'	108° 51'	NS	1977	Aug.	15	NS	1	0	Note 1
	T3.5	75° 01'	108° 52'	NS	1977	Aug.	15	NS	1	0	Note 1
	T4.0	75° 00'	108° 53'	NS	1977	Aug.	15	NS	1	0	Note 1
	T4.5	74° 59.5'	108° 53.5'	NS	1977	Aug.	15	NS	1	0	Note 1
	9	75° 04.6'	108° 49.9'	NS	1977	Aug.	26	NS	9	140	Note 1
78-0006	Bridport Inlet	75° 03.2'	108° 52.5'	NS	1978	Aug.	22	NS	6	110	Note 1
78-0020	79	73° 47.2'	79° 59.3'	768	1978	Sept.	10	1331	18	750	
	80	74° 01.7'	80° 00.9'	786	1978	Sept.	10	2007	15	700	
	81	74° 17.0'	80° 02.4'	693	1978	Sept.	11	0036	15	670	
	82	74° 31.9'	80° 00.6'	556	1978	Sept.	11	0600	13	550	
78-0021	1	74° 30.5'	81° 33'	NS	1978		NS	NS	1	0	Note 1, 58
	2	74° 30'	81° 32.5'	NS	1978		NS	NS	1	0	Note 1, 58
	3	74° 30'	81° 29.5'	NS	1978		NS	NS	1	0	Note 1, 58
	4	74° 29.2'	81° 28'	NS	1978		NS	NS	1	0	Note 1, 58
	5	74° 33.9'	81° 11.5'	NS	1978		NS	NS	1	0	Note 1, 58
	6	74° 33.4'	81° 13'	NS	1978		NS	NS	1	0	Note 1, 58
	7	74° 32.9'	81° 12.5'	NS	1978		NS	NS	1	0	Note 1, 58
	8	74° 32.5'	81° 11.5'	NS	1978		NS	NS	1	0	Note 1, 58
	9	74° 31.4'	81° 12.5'	NS	1978		NS	NS	1	0	Note 1, 58
	10	74° 30.9'	81° 10'	NS	1978		NS	NS	1	0	Note 1, 58
	11	74° 30.8'	81° 08'	NS	1978		NS	NS	1	0	Note 1, 58
	12	74° 33.7'	81° 02'	NS	1978		NS	NS	1	0	Note 1, 58
	13	74° 33.9'	80° 59'	NS	1978		NS	NS	1	0	Note 1, 58
	14	74° 32.8'	80° 51'	NS	1978		NS	NS	1	0	Note 1, 58
	15	74° 33.5'	80° 48'	NS	1978		NS	NS	1	0	Note 1, 58
	16	74° 33'	80° 48'	NS	1978		NS	NS	1	0	Note 1, 58
78-0022 A	C-1	73° 48.2'	80° 11'	825	1978	July	31	NS	6	50	
	C-1	73° 48.2'	80° 11'	825	1978	Aug.	5	NS	9	700	
	C-2	73° 59.1'	80° 15'	786	1978	Aug.	5	NS	15	700	
	C-3	74° 09.8'	80° 18'	786	1978	Aug.	4	NS	14	600	
	C-4	74° 19.7'	80° 22'	702	1978	Aug.	4	NS	14	600	
	C-5	74° 29.8'	80° 26'	650	1978	Aug.	4	NS	14	600	

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
78-0022 A (cont'd)	B-6	74° 21.8'	82° 00'	673	1978	July	28	NS	6	50	Note 59
	EM	74° 06.0'	81° 30'	750	1978	July	28	NS	6	50	
	PG-1	74° 48'	79° 40'	NS	1978	Aug.	3	NS	3	25	
	PG-2	74° 48'	79° 39'	NS	1978	Aug.	3	NS	3	25	
	PG-3	74° 48'	79° 39'	NS	1978	Aug.	3	NS	3	25	
	PG-4	74° 45'	80° 10'	NS	1978	Aug.	3	NS	3	25	
	PG-5	74° 45'	80° 09'	NS	1978	Aug.	3	NS	3	25	
	PG-6	74° 45'	80° 08'	NS	1978	Aug.	3	NS	3	25	
	PG-7	74° 37'	80° 15'	NS	1978	Aug.	3	NS	2	25	
	PG-8	74° 37'	80° 14'	NS	1978	Aug.	3	NS	2	10	
	PG-9	74° 37'	80° 13'	NS	1978	Aug.	3	NS	3	25	
	CS-1	74° 35'	80° 25'	12	1978	Aug.	4	NS	2	10	
	CS-2	74° 34.5'	80° 25'	16	1978	Aug.	4	NS	2	10	
	CS-3	74° 34'	80° 25'	87	1978	Aug.	4	NS	3	25	
78-0022 B	C-1	73° 48.2'	80° 11'	825	1978	Sept.	6	NS	6	50	
	C-2	73° 59.1'	80° 15'	786	1978	Sept.	6	NS	6	50	
	C-3	74° 09.8'	80° 18'	786	1978	Sept.	6	NS	6	50	
	C-4	74° 19.7'	80° 22'	702	1978	Sept.	6	NS	6	50	
	C-5	74° 29.8'	80° 26'	650	1978	Sept.	6	NS	6	50	
	CW	74° 27.0'	82° 03'	768	1978	Aug.	21	NS	6	50	
	CW	74° 27.0'	82° 03'	768	1978	Sept.	7	NS	6	50	
	EM	74° 06.0'	81° 30'	750	1978	Sept.	7	NS	6	50	
	NB	73° 43.0'	81° 02'	547	1978	Aug.	19	NS	6	50	
	NB	73° 43.0'	81° 02'	547	1978	Sept.	8	NS	6	50	
	PH-1	74° 33.9'	81° 17'	20	1978	Aug.	28	NS	5	15	
	PH-2	74° 33.3'	81° 16'	72	1978	Aug.	28	NS	7	50	
	PH-3	74° 31.5'	81° 02'	46	1978	Aug.	29	NS	8	50	
	Cape Hay	73° 45'	80° 00'	NS	1978	Sept.	3-4	NS	1	0	Note 60
78-0022 C	C-1	73° 48.2'	80° 11'	825	1978	Sept.	20	NS	6	50	
	C-2	73° 59.1'	80° 15'	786	1978	Sept.	20	NS	6	50	
	C-3	74° 09.8'	80° 18'	786	1978	Sept.	20	NS	6	50	
	C-4	74° 19.7'	80° 22'	702	1978	Sept.	20	NS	6	50	
	C-5	74° 29.8'	80° 26'	650	1978	Sept.	19	NS	6	50	
	CW	74° 27.0'	82° 03'	768	1978	Sept.	19	NS	6	50	
	NB	73° 43.0'	81° 02'	547	1978	Sept.	22	NS	6	50	

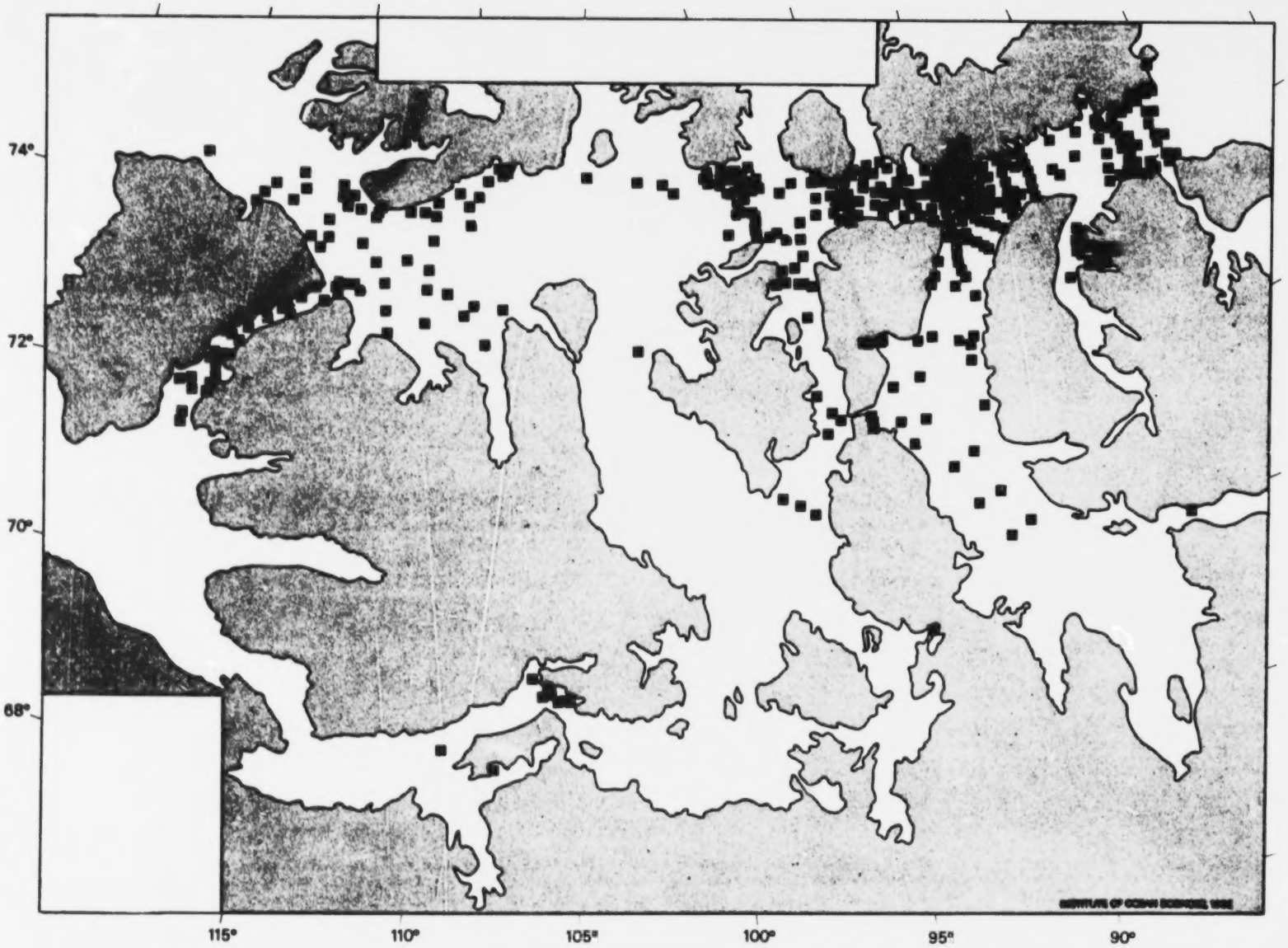
DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
79-0014	1-79	75° 0.8'	108° 48.0'	141	1979	March	13	NS	6	110	
	2-79	74° 58.8'	108° 53.0'	87	1979	March	20	NS	5	75	
79-0024	1	73° 08.5'	84° 58.5'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	1	73° 08.5'	84° 58.5'	NS	1979	Aug.	NS	NS			Note 1, 61
	1	73° 08.5'	84° 58.5'	NS	1979	Aug.	NS	NS			Note 1, 62
	1	73° 08.5'	84° 58.5'	NS	1979	Aug.	NS	NS			Note 1, 63
	1	73° 08.5'	84° 58.5'	NS	1979	Aug.	NS	NS			Note 1, 64
	1	73° 08.5'	84° 58.5'	NS	1979	Aug.	NS	NS			Note 1, 65
	2	72° 59'	84° 41.5'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	2	72° 59'	84° 41.5'	NS	1979	Aug.	NS	NS			Note 1, 66
	2	72° 59'	84° 41.5'	NS	1979	Aug.	NS	NS			Note 1, 42
	2	72° 59'	84° 41.5'	NS	1979	Aug.	NS	NS			Note 1, 67
	2	72° 59'	84° 41.5'	NS	1979	Aug.	NS	NS			Note 1, 68
	3	72° 56.5'	84° 33.5'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	3	72° 56.5'	84° 33.5'	NS	1979	Aug.	NS	NS			Note 1, 69
	3	72° 56.5'	84° 33.5'	NS	1979	Aug.	NS	NS			Note 1, 70
	3	72° 56.5'	84° 33.5'	NS	1979	Aug.	NS	NS			Note 1, 71
	3	72° 56.5'	84° 33.5'	NS	1979	Aug.	NS	NS			Note 1, 72
	3	72° 56.5'	84° 33.5'	NS	1979	Aug.	NS	NS			Note 1, 73
	4	72° 55'	84° 24.5'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	4	72° 55'	84° 24.5'	NS	1979	Aug.	NS	NS			Note 1, 74
	4	72° 55'	84° 24.5'	NS	1979	Aug.	NS	NS			Note 1, 75
	5	72° 55.5'	84° 03.5'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	5	72° 55.5'	84° 03.5'	NS	1979	Aug.	NS	NS			Note 1, 76
	5	72° 55.5'	84° 03.5'	NS	1979	Aug.	NS	NS			Note 1, 77
	5	72° 55.5'	84° 03.5'	NS	1979	Aug.	NS	NS			Note 1, 78
	5	72° 55.5'	84° 03.5'	NS	1979	Aug.	NS	NS			Note 1, 79
	6	72° 58'	84° 19.5'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	6	72° 58'	84° 19.5'	NS	1979	Aug.	NS	NS			Note 1, 80
	6	72° 58'	84° 19.5'	NS	1979	Aug.	NS	NS			Note 1, 81
	7	73° 09'	84° 40'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	7	73° 09'	84° 40'	NS	1979	Aug.	NS	NS			Note 1, 61
	7	73° 09'	84° 40'	NS	1979	Aug.	NS	NS			Note 1, 82
	7	73° 09'	84° 40'	NS	1979	Aug.	NS	NS			Note 1, 83
	7	73° 09'	84° 40'	NS	1979	Aug.	NS	NS			Note 1, 84

DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
79-0024 (cont'd)	8	73° 16'	84° 51'	NS	1979	Aug.	NS	NS	1	bottom	Note 1
	8	73° 16'	84° 51'	NS	1979	Aug.	NS	NS			Note 1, 85
	8	73° 16'	84° 51'	NS	1979	Aug.	NS	NS			Note 1, 86
80-0007	50	73° 44.7'	81° 46.5'	240	1980	Aug.	5	0810	8	230	
	51	73° 47.0'	81° 45.7'	570	1980	Aug.	5	0915	8	570	
	52	73° 52.6'	81° 47.5'	622	1980	Aug.	5	1334	8	622	
	53	73° 58.0'	81° 46.0'	650	1980	Aug.	5	1836	8	650	
	54	74° 06.0'	81° 46.0'	713	1980	Aug.	5	2002	8	400	
	55	74° 11.0'	81° 46.5'	732	1980	Aug.	5	2240	8	725	
	56	74° 19.7'	81° 46.5'	680	1980	Aug.	6	0121	5	600	
	57	74° 24.3'	81° 46.5'	660	1980	Aug.	6	0240	8	710	
	58	74° 27.0'	81° 45.0'	720	1980	Aug.	6	0420	8	710	
	60	73° 53.6'	86° 00.0'	238	1980	Aug.	6	2240	8	235	
	61	74° 01.8'	86° 00.0'	420	1980	Aug.	7	0216	8	420	
	62	74° 06.9'	86° 00.0'	510	1980	Aug.	7	0400	8	500	
	63	74° 11.5'	86° 00.0'	515	1980	Aug.	7	0521	8	515	
	64	74° 16.3'	86° 00.0'	530	1980	Aug.	7	0817	8	530	
	65	74° 21.0'	86° 00.0'	550	1980	Aug.	7	0917	8	550	
	66	74° 28.0'	85° 56.5'	219	1980	Aug.	6	1630	8	210	
	67	74° 26.3'	86° 00.3'	503	1980	Aug.	6	1330	8	500	
	68	74° 31.0'	89° 45.0'	215	1980	Aug.	8	1301	8	215	
	69	74° 25.9'	89° 44.3'	300	1980	Aug.	8	1159	8	295	
	70	74° 20.8'	89° 45.0'	280	1980	Aug.	8	1030	8	280	
	71	74° 17.0'	89° 47.0'	220	1980	Aug.	8	0734	8	210	
	72	74° 11.0'	89° 43.0'	220	1980	Aug.	8	0554	8	200	
	73	74° 06.0'	89° 44.0'	200	1980	Aug.	8	0445	8	200	
	74	74° 01.0'	89° 44.0'	235	1980	Aug.	8	0335	8	235	
	75	73° 55.4'	89° 43.7'	285	1980	Aug.	8	0109	8	280	
	81	73° 48.3'	81° 05.5'	620	1980	Aug.	12	1232	8	620	
	82	74° 37.9'	93° 39.0'	95	1980	Aug.	13	1621	8	85	
	83	74° 33.0'	93° 39.0'	135	1980	Aug.	13	1925	8	135	
	84	74° 28.0'	93° 39.0'	160	1980	Aug.	13	2042	8	160	
	85	74° 22.6'	93° 39.0'	160	1980	Aug.	13	2147	8	160	
	86	74° 18.0'	93° 39.7'	160	1980	Aug.	13	2337	8	160	
	87	74° 12.8'	93° 31.0'	140	1980	Aug.	14	0103	8	140	

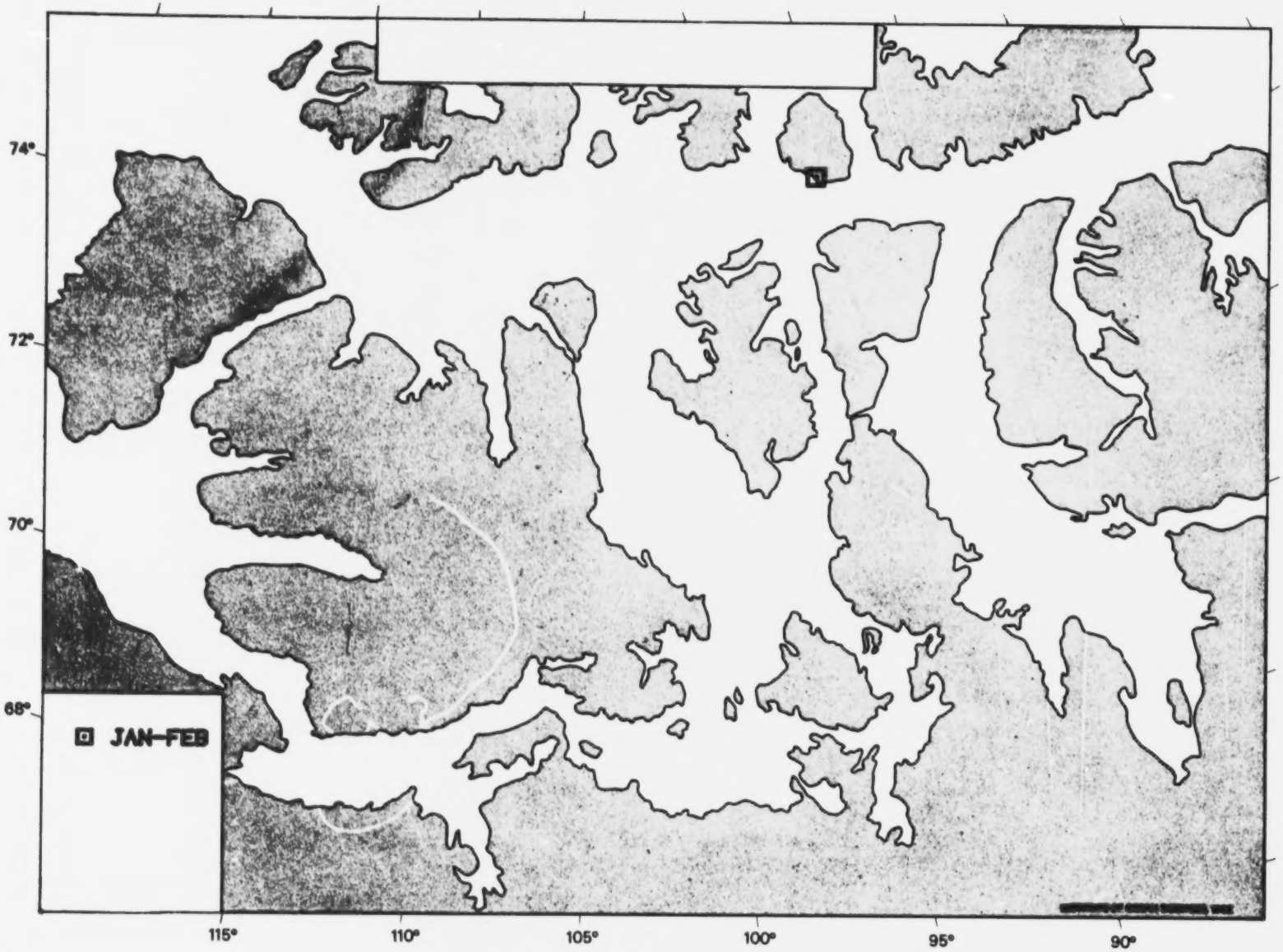
DATA SET NUMBER	STATION NUMBER	LATITUDE °N	LONGITUDE °W	STATION DEPTH (m)	TIME SAMPLED YEAR	MONTH	DAY	HOUR GMT	NUMBER POINTS	MAXIMUM DEPTH SAMPLED (m)	REMARKS
80-0007 (cont'd)	88	74° 40.2'	93° 26.0'	85	1980	Aug.	14	0728	8	70	
	89	74° 40.8'	93° 14.0'	135	1980	Aug.	14	0814	8	125	
	90	74° 41.0'	92° 55.0'	140	1980	Aug.	14	0906	8	140	
	91	74° 36.0'	92° 50.5'	145	1980	Aug.	14	1005	8	140	
	92	74° 29.2'	92° 06.8'	190	1980	Aug.	14	1212	8	185	
	93	74° 41.0'	91° 51.0'	NS	1980	Aug.	14	1528	8	95	
	100	73° 59.5'	89° 42.5'	250	1980	Aug.	15	0619	8	250	
	101	73° 53.6'	89° 44.0'	295	1980	Aug.	15	0726	8	295	
	102	73° 48.4'	89° 40.5'	310	1980	Aug.	23	0815	8	310	
	103	73° 37.6'	89° 44.0'	330	1980	Aug.	15	1022	8	330	
	104	73° 32.6'	89° 47.0'	365	1980	Aug.	15	1358	8	365	
	105	73° 25.8'	89° 44.0'	440	1980	Aug.	15	1530	8	435	
	106	73° 21.1'	89° 40.0'	440	1980	Aug.	15	1808	8	435	
	107	73° 15.5'	89° 43.0'	430	1980	Aug.	15	2014	8	420	
	108	73° 29.8'	88° 31.0'	128	1980	Aug.	15	2356	8	125	
	109	73° 32.7'	88° 47.3'	310	1980	Aug.	16	0045	8	310	
	110	73° 36.0'	89° 03.0'	384	1980	Aug.	16	0218	8	375	
	111	73° 39.0'	89° 18.0'	420	1980	Aug.	16	0322	8	420	
	112	73° 42.2'	89° 34.0'	365	1980	Aug.	16	0429	8	365	
	113	73° 45.1'	89° 50.5'	310	1980	Aug.	16	0532	8	310	
	114	73° 48.2'	90° 05.5'	295	1980	Aug.	16	0640	8	285	
	115	73° 49.0'	90° 11.0'	200	1980	Aug.	16	0736	8	200	
80-0009	80-1	75° 02.93'	108° 48.67'	NS	1980	April	6	NS	3	30	
	80-2	75° 00.85'	108° 48.50'	135-140	1980	April	7	NS	6	100	Note 87
	80-4	74° 58.13'	108° 53.03'	63.5	1980	April	9	0200	4	50	Note 88
80-0018	2	72° 00.0'	96° 00.0'		1980	NS	NS	NS	7		
	4	74° 00.0'	83° 00.0'		1980	NS	NS	NS	27		
81-0007	81046	74° 13.0'	93° 47.8'	162.6	1981	Mar.	31	2036	NS	NS	
	81084	74° 41.6'	96° 00.0'	241.0	1981	Apr.	1	1623	NS	NS	
	81081	73° 41.6'	96° 49.0'	225.5	1981	Apr.	1	1843	NS	NS	
	81016	74° 12.3'	97° 49.3'	174.5	1981	Apr.	19	1650	NS	NS	

10. MAPS

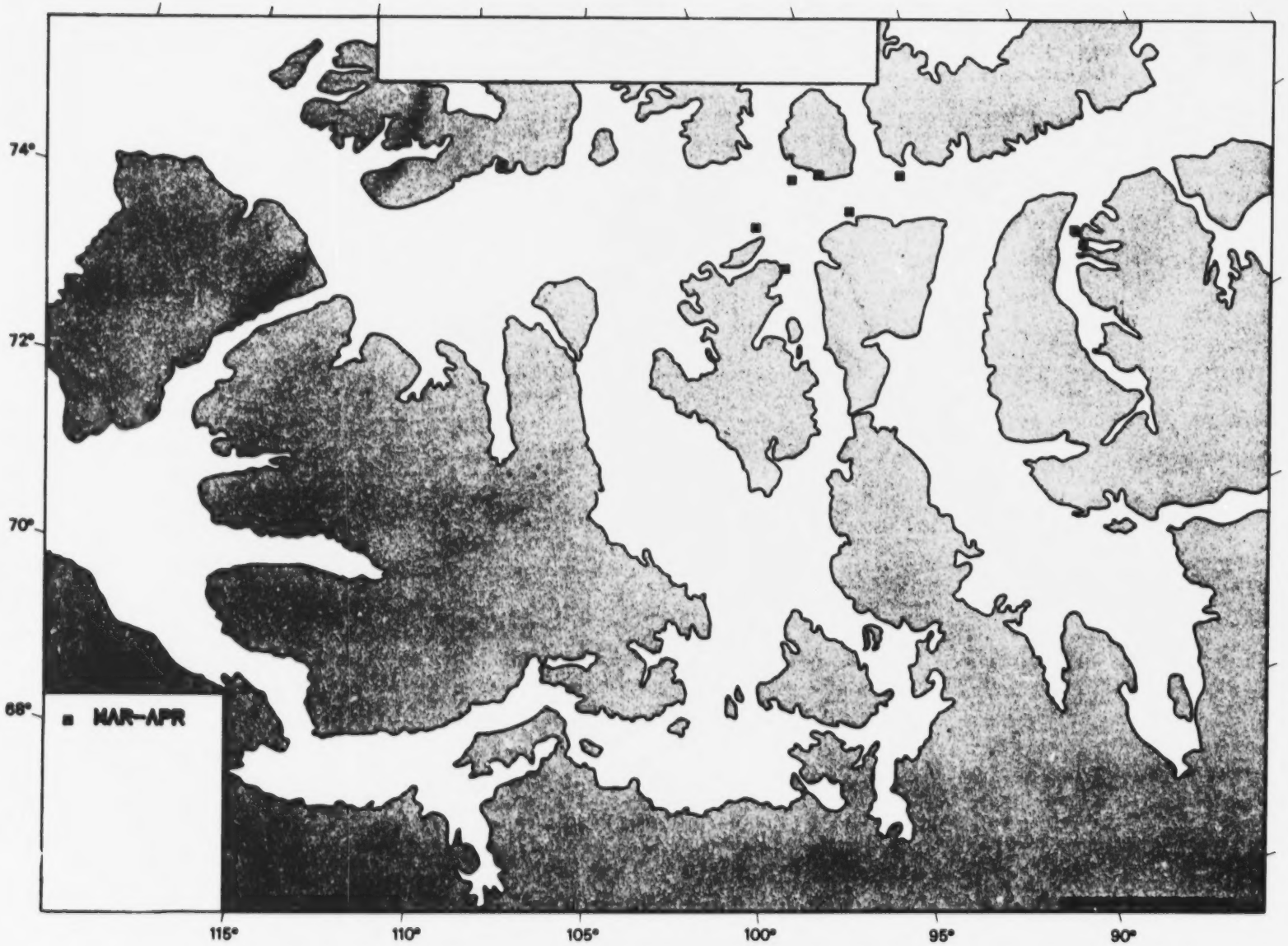
10.1 Geographical occurrence of chemical oceanographic data on a cumulative bi-monthly basis.



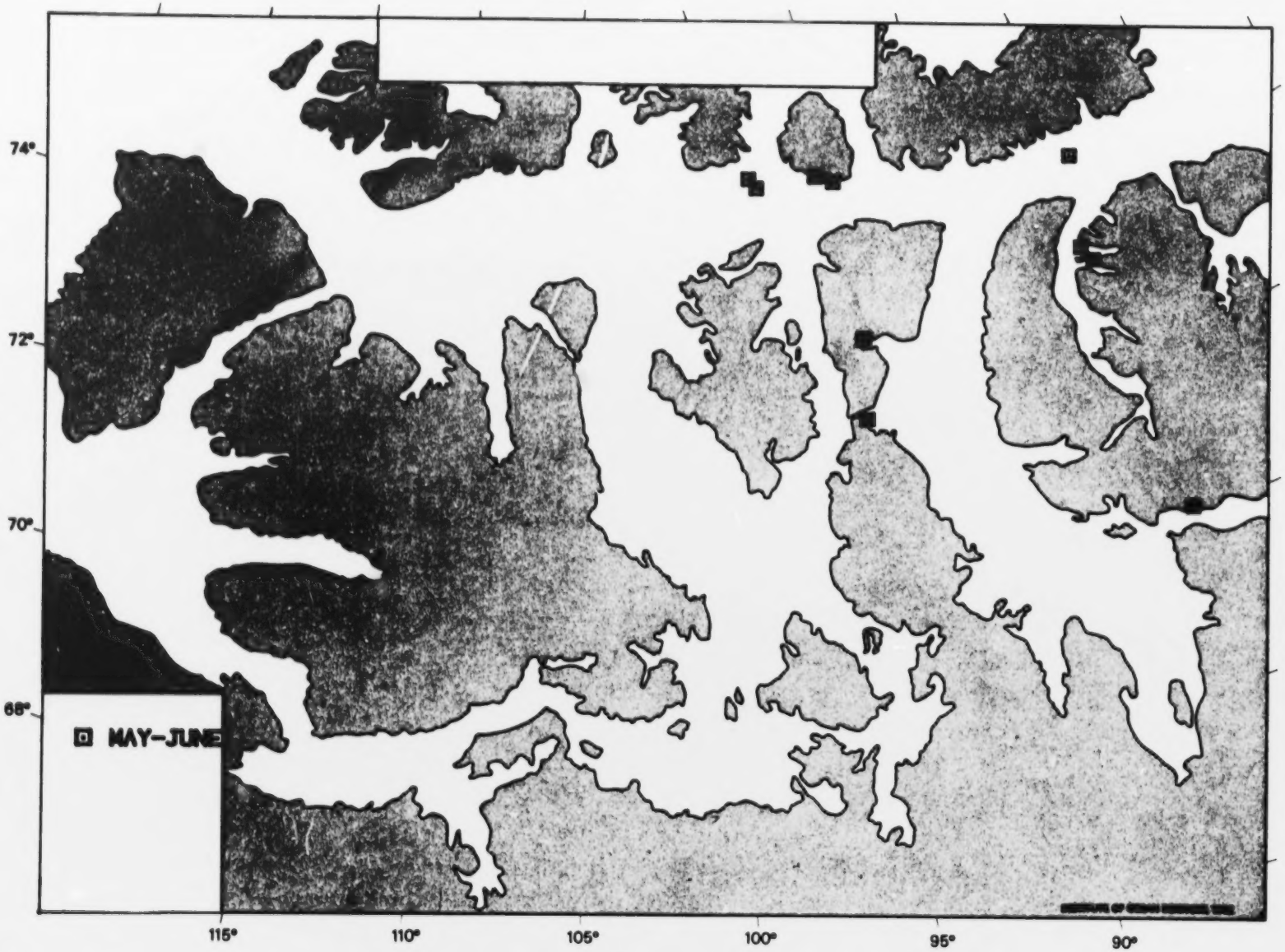
The locations of stations reporting chemical oceanographic data, all years.



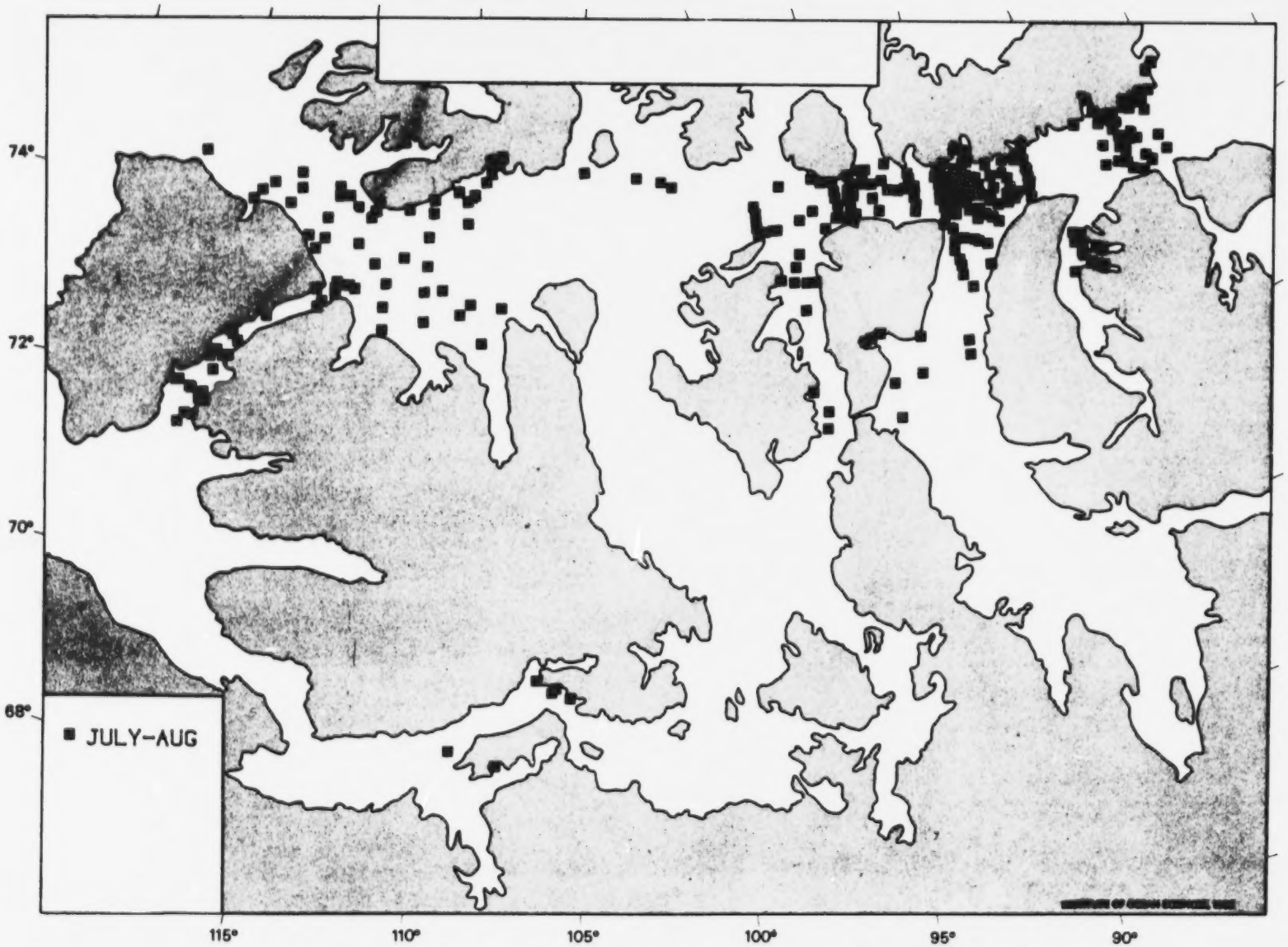
The locations of stations reporting chemical oceanographic data collected during January - February, all years.



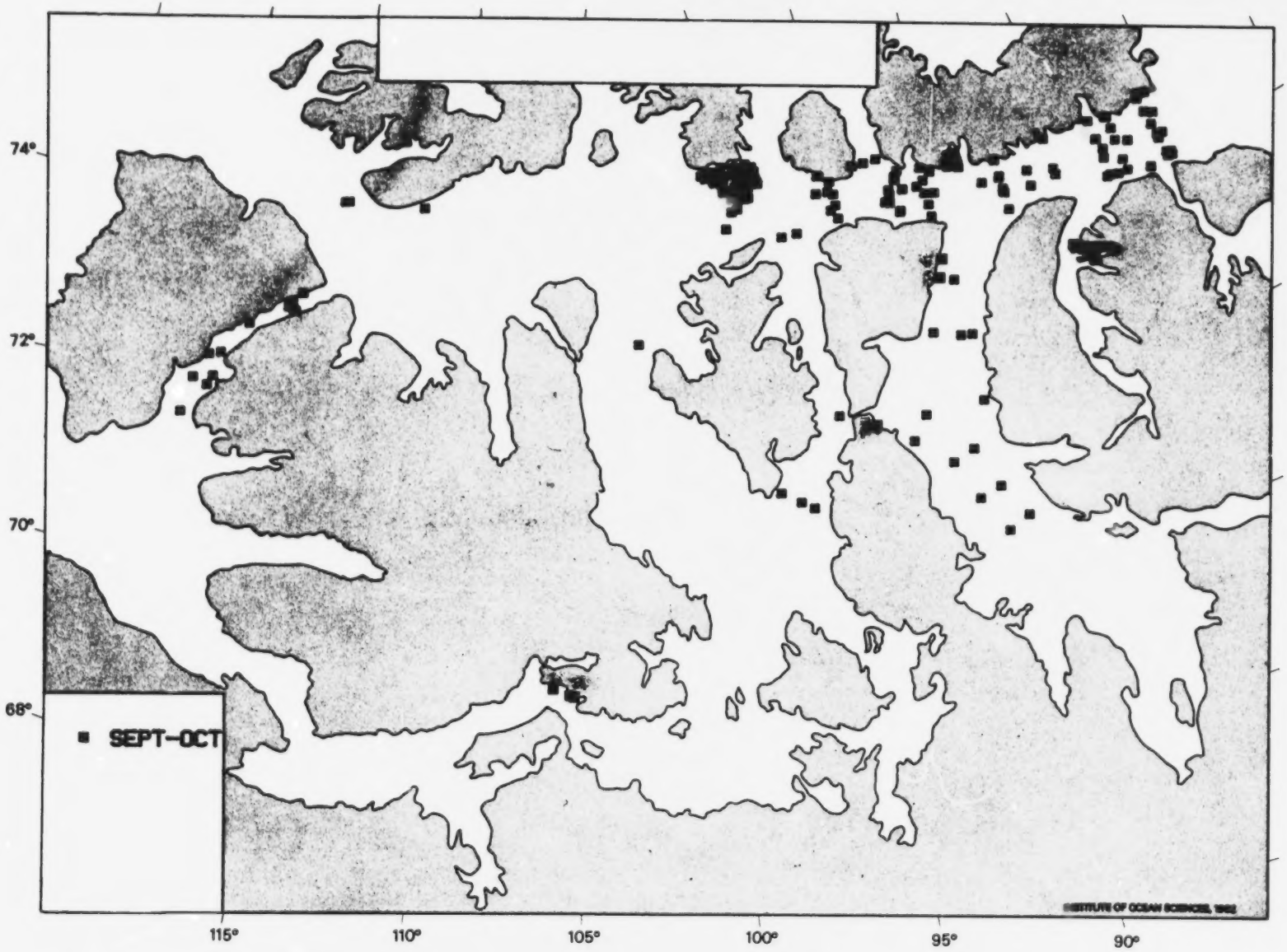
The locations of stations reporting chemical oceanographic data collected during March - April, all years.



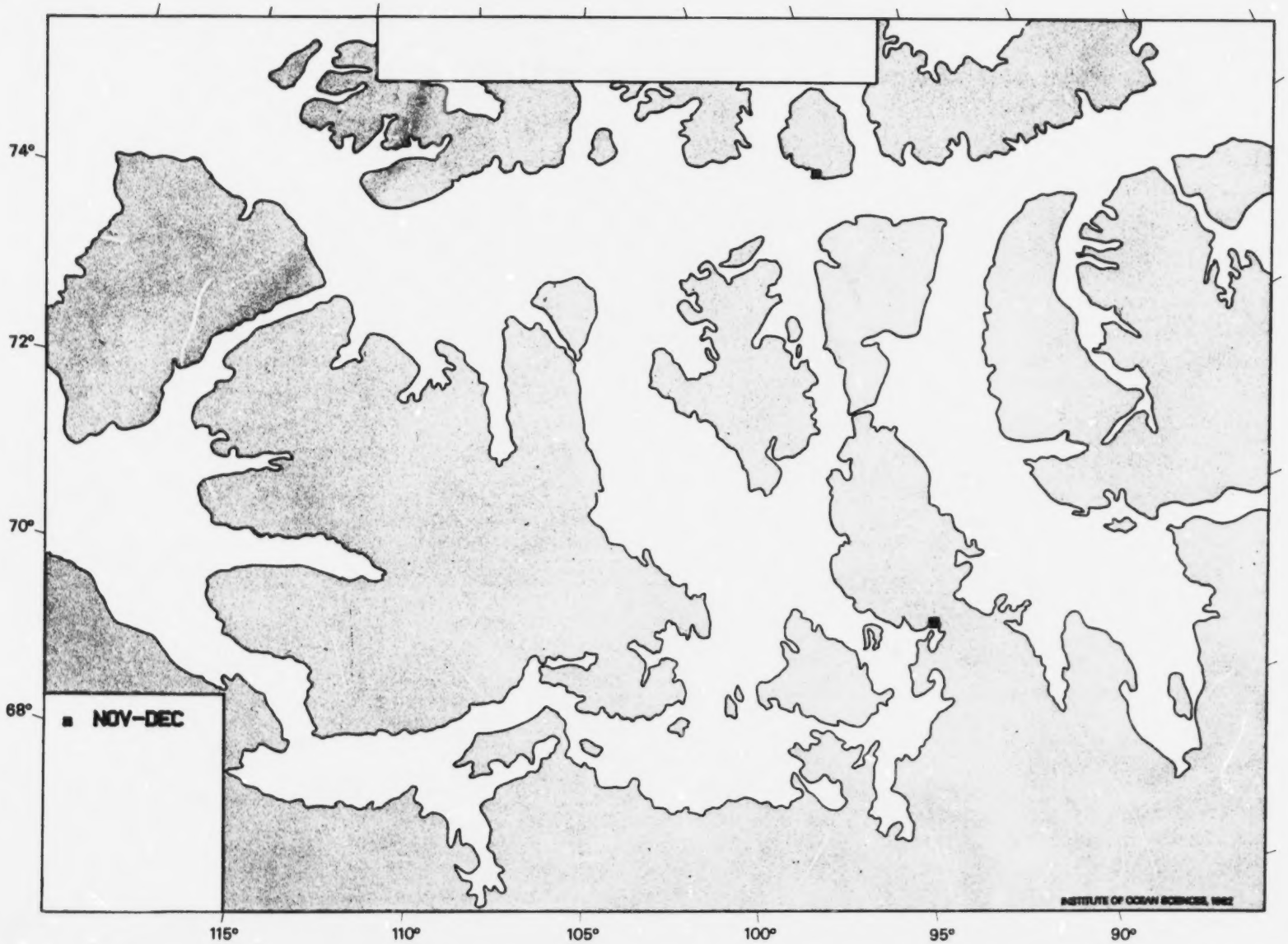
The locations of stations reporting chemical oceanographic data collected during May - June, all years.



The locations of stations reporting chemical oceanographic data collected during July - August, all years.

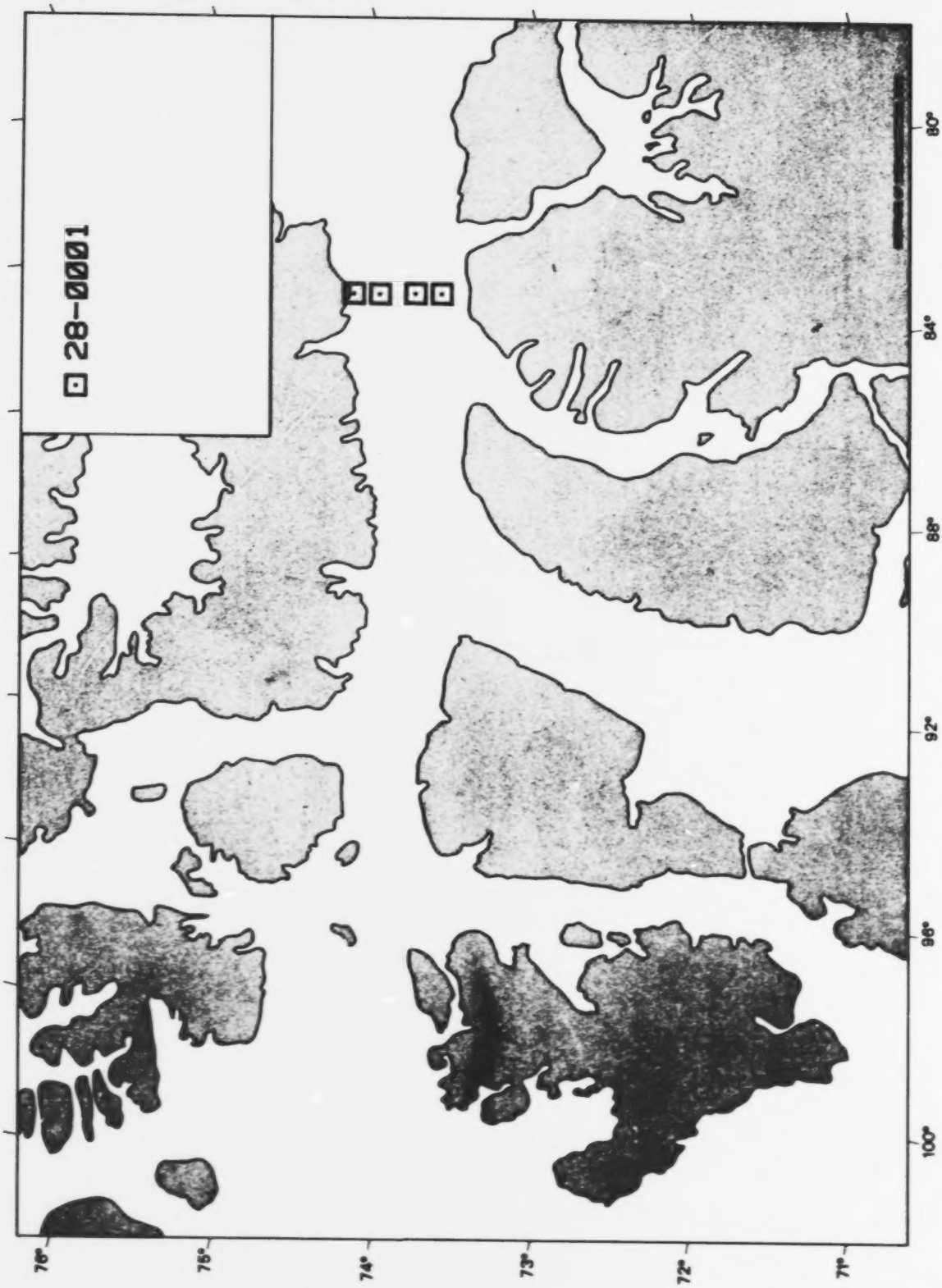


The locations of stations reporting chemical oceanographic data collected during September - October, all years.



The locations of stations reporting chemical oceanographic data collected during November - December, all years.

10.2 Geographical occurrence of chemical oceanographic data on a yearly basis.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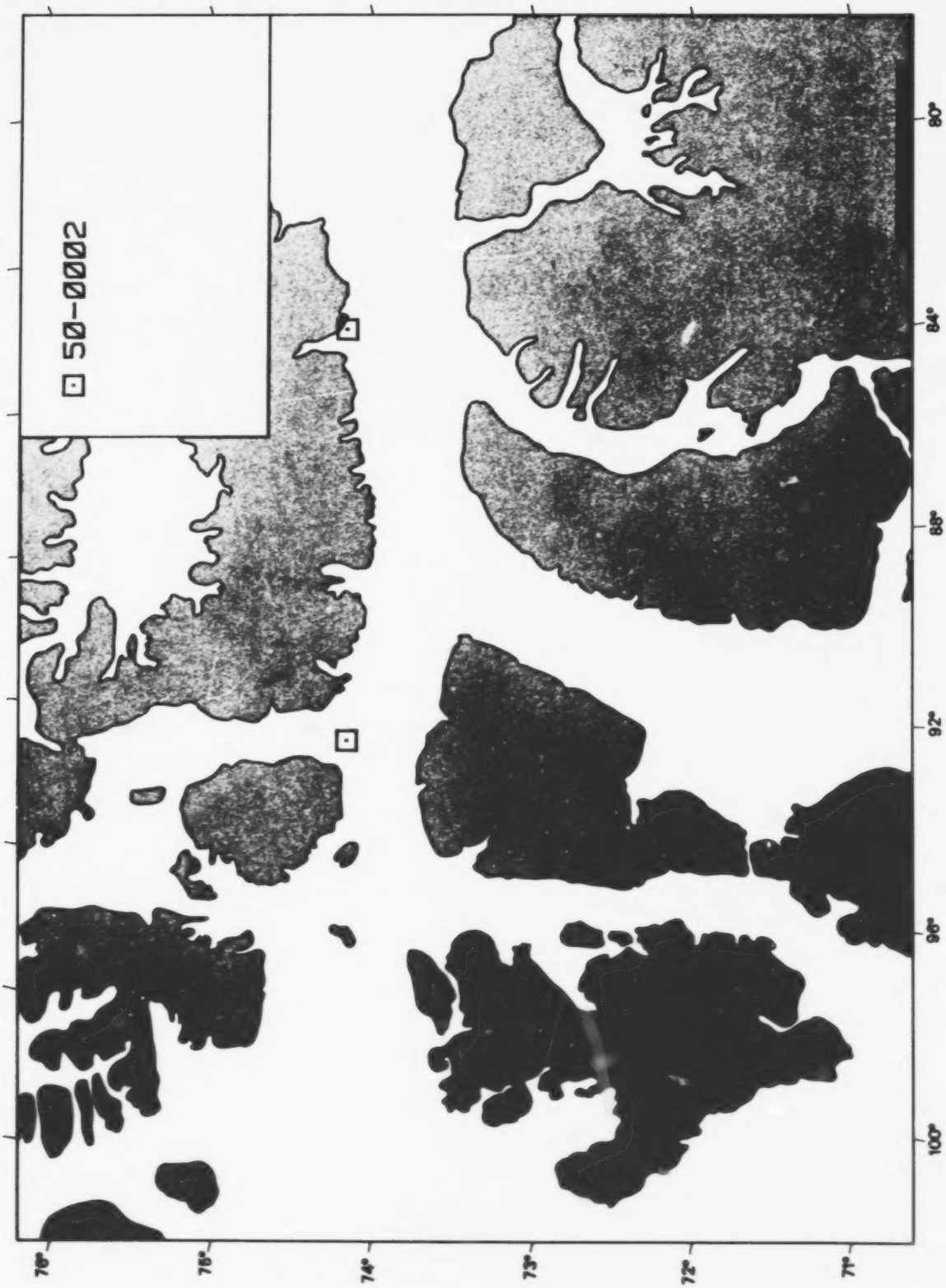
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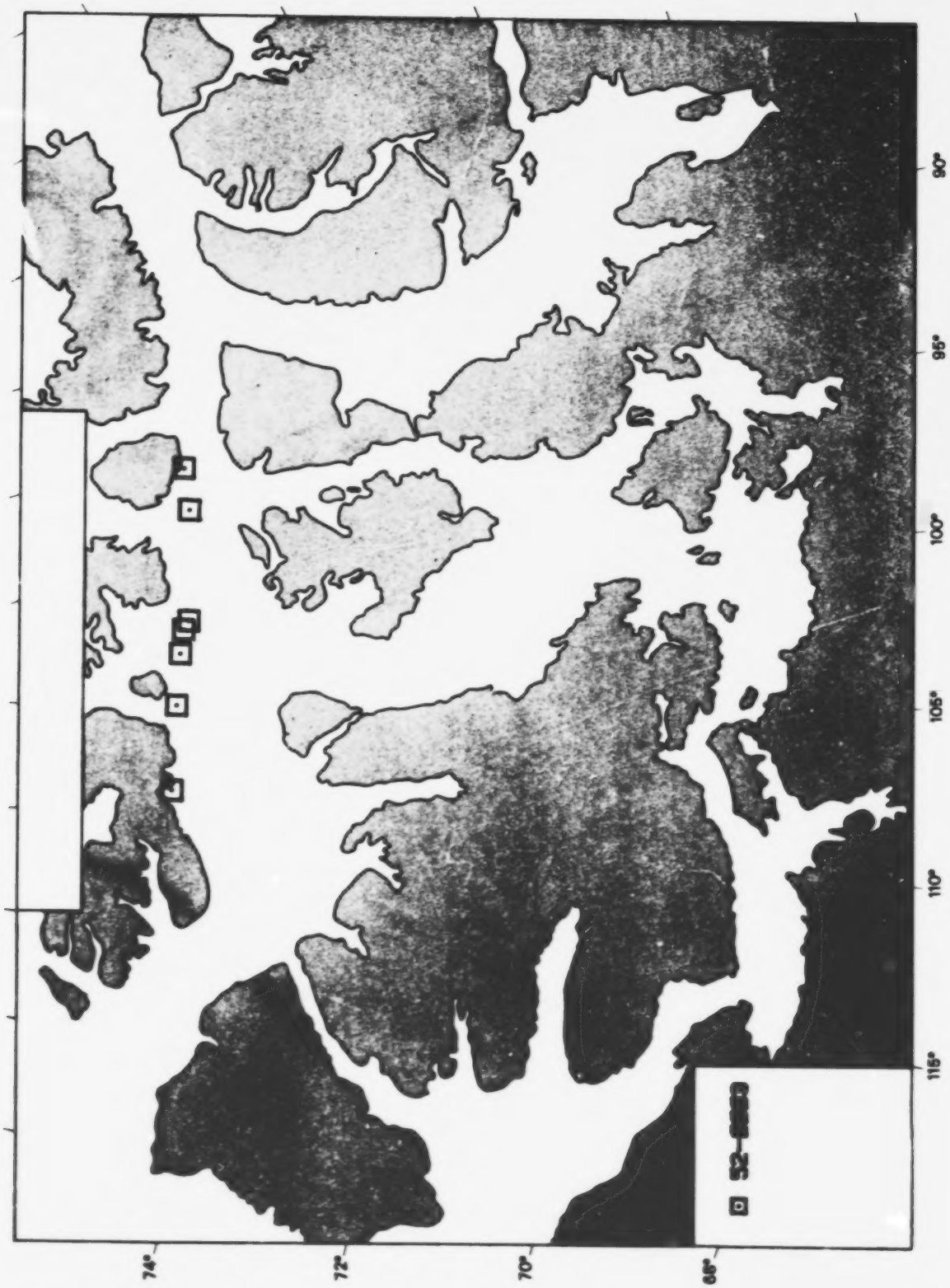
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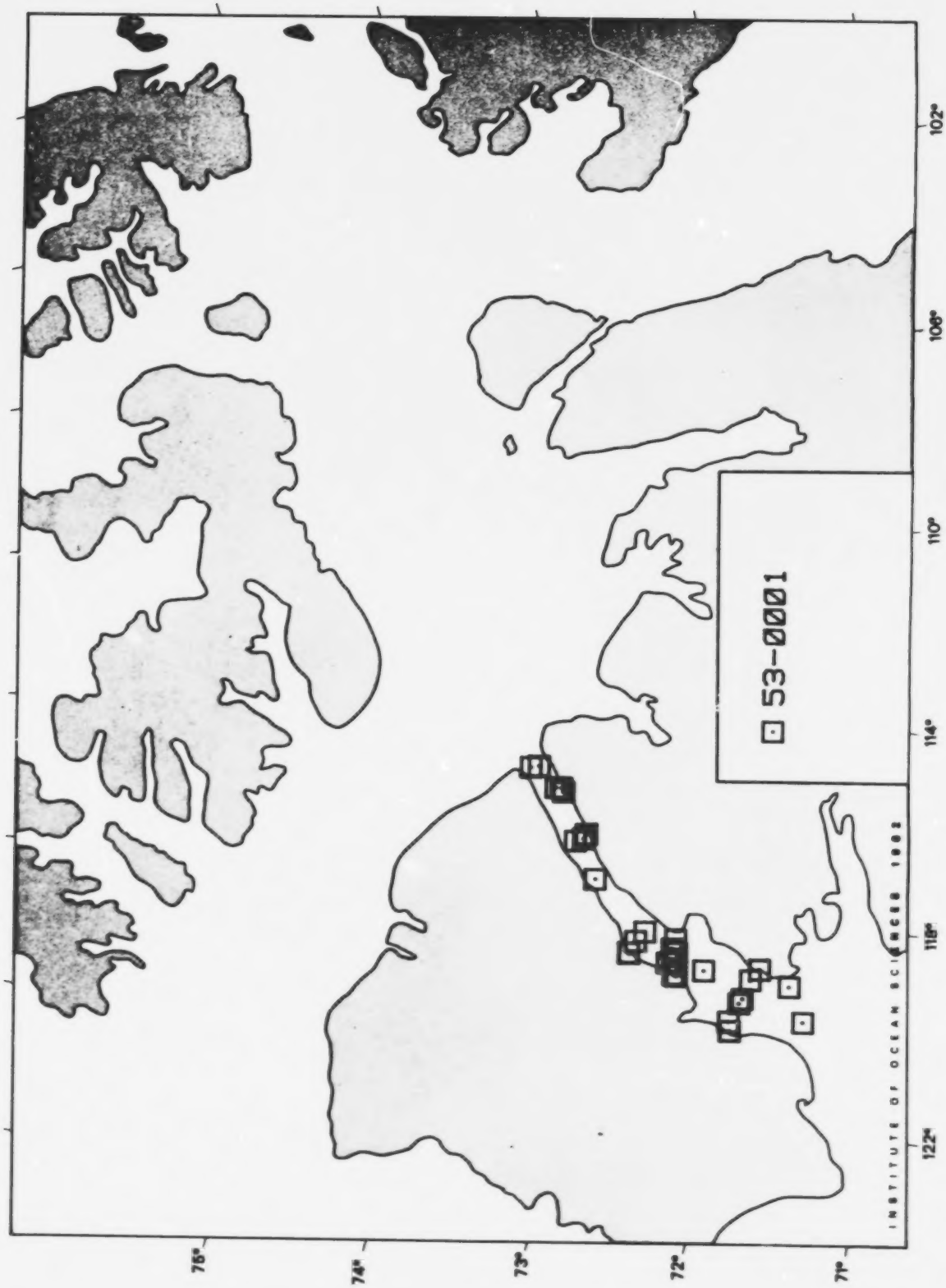
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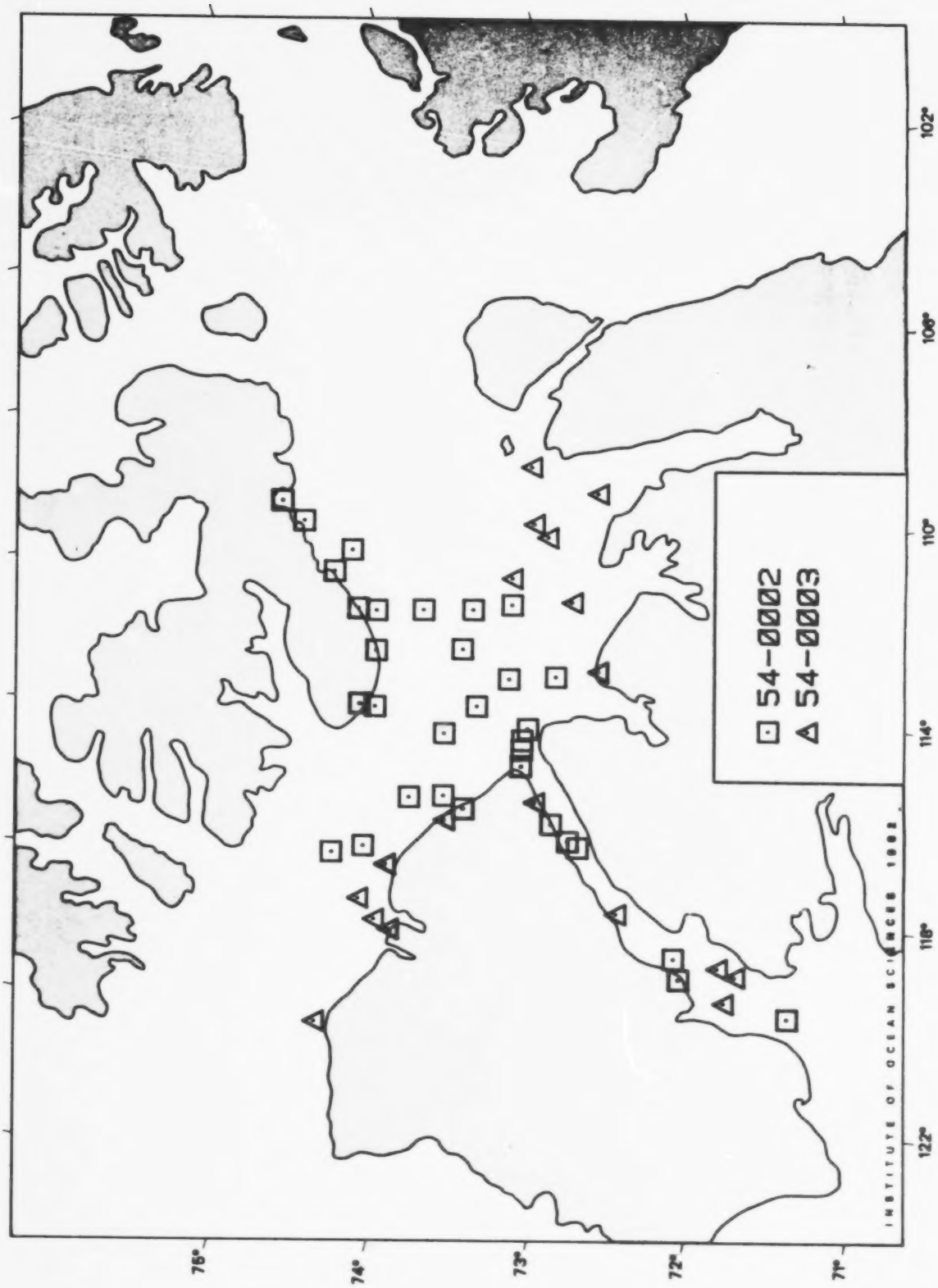
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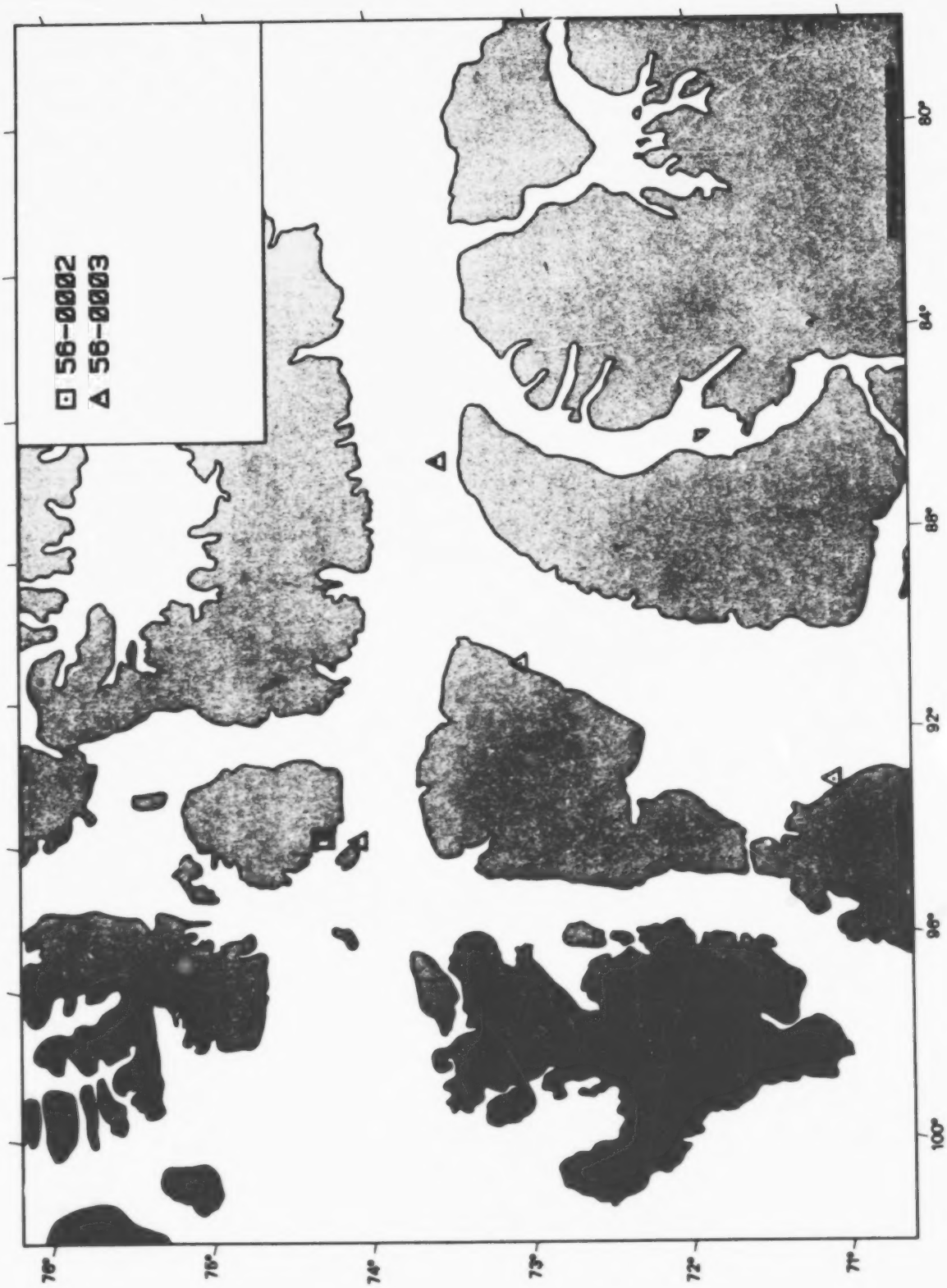
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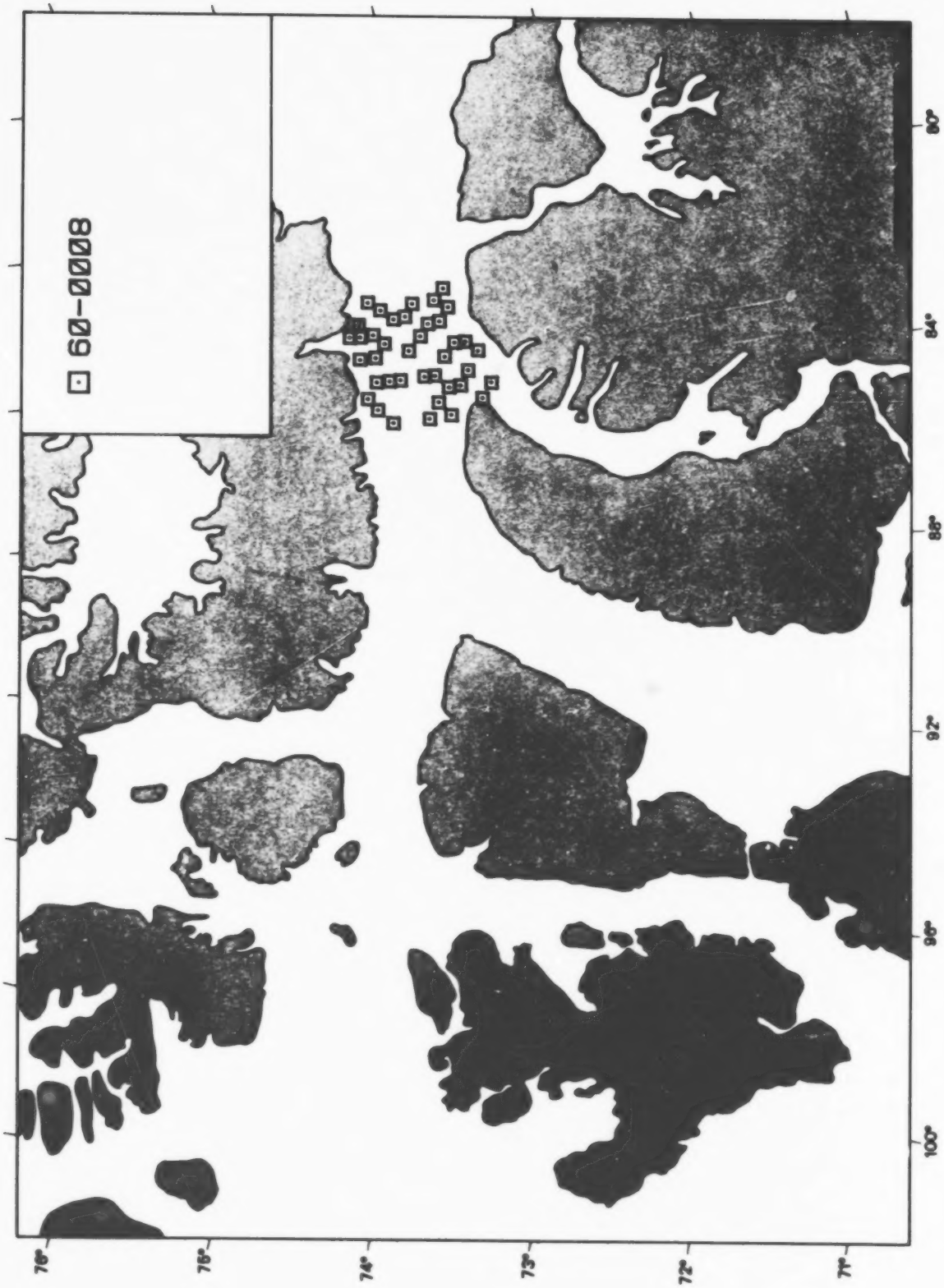
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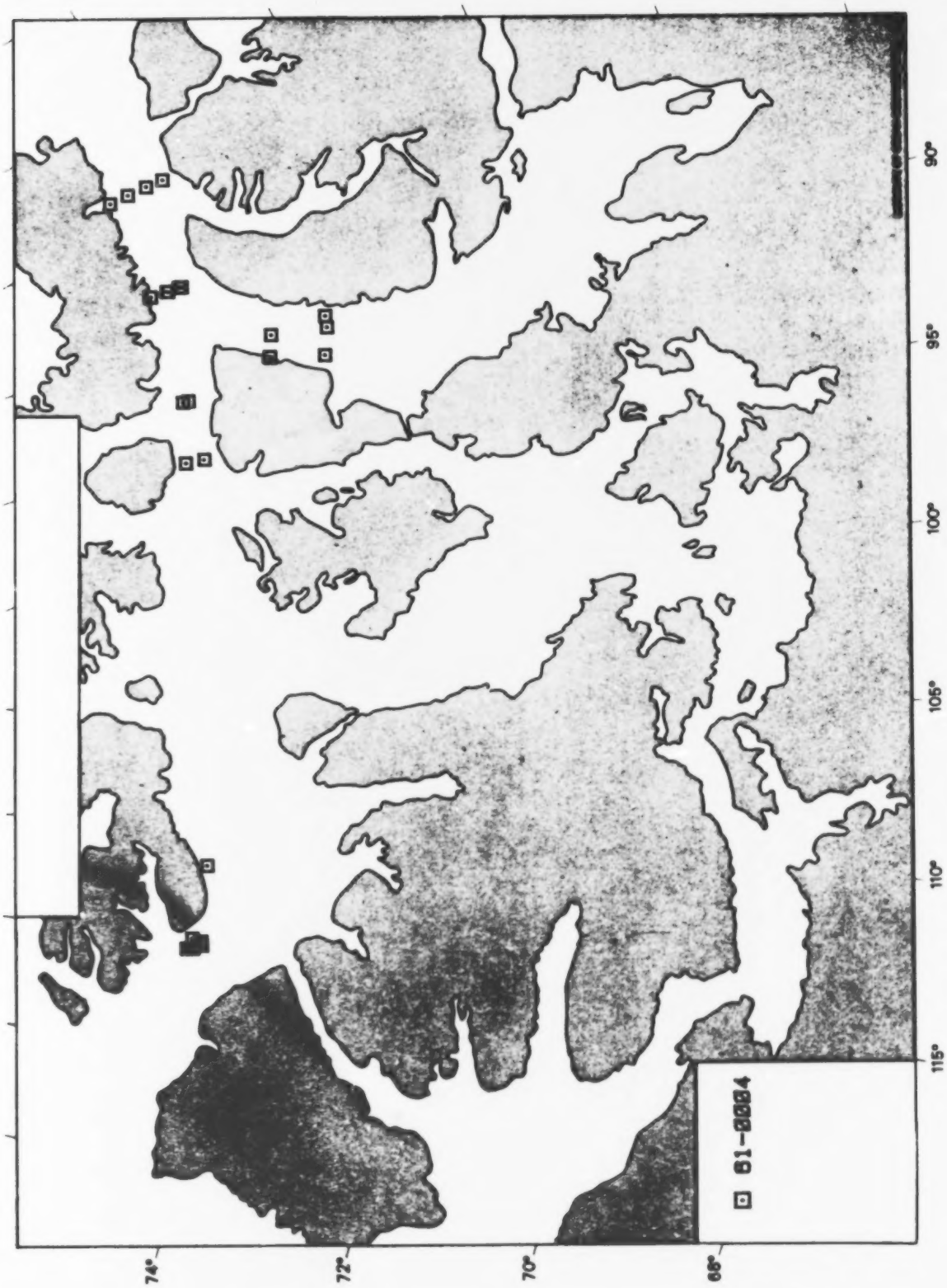
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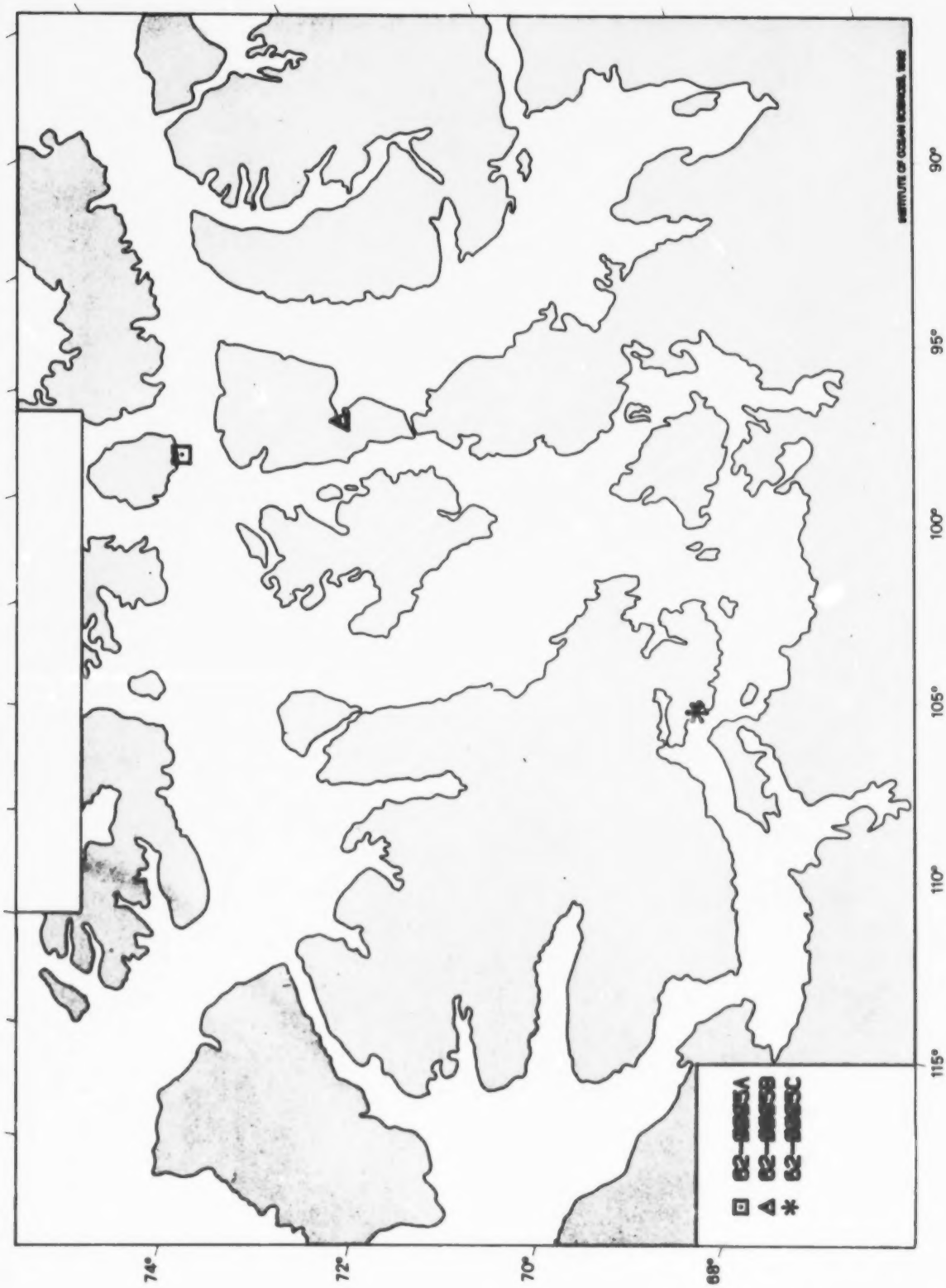
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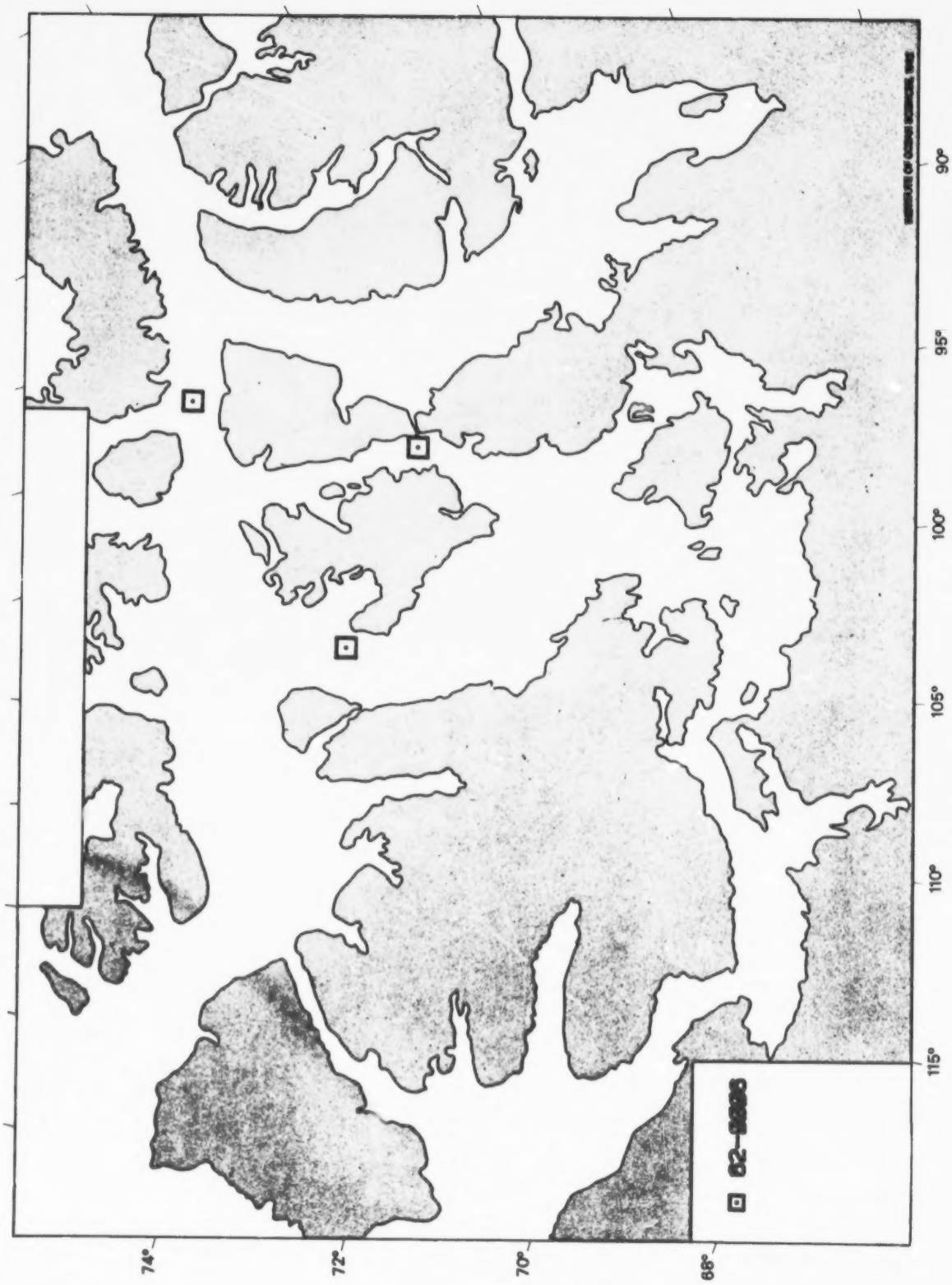
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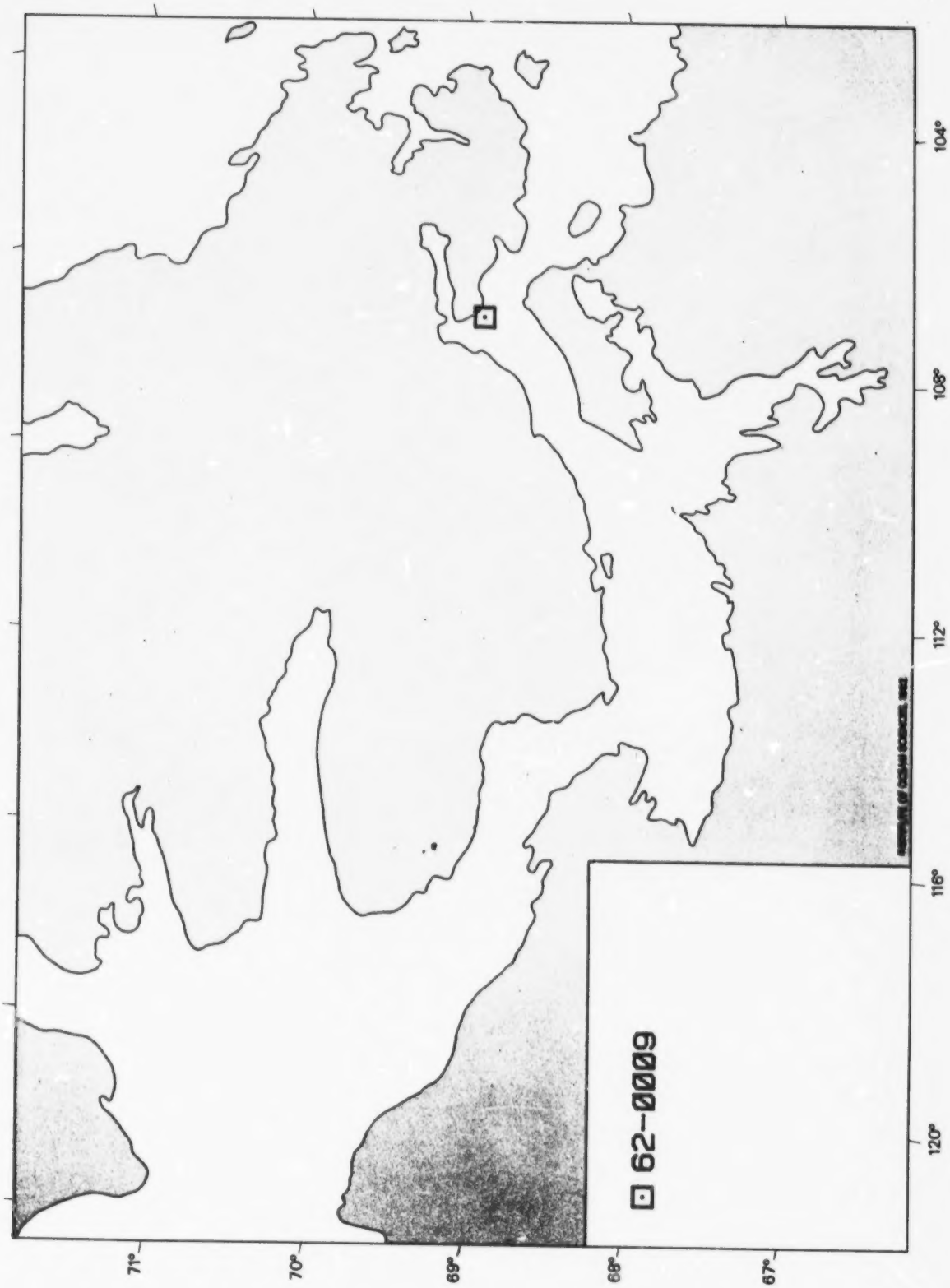
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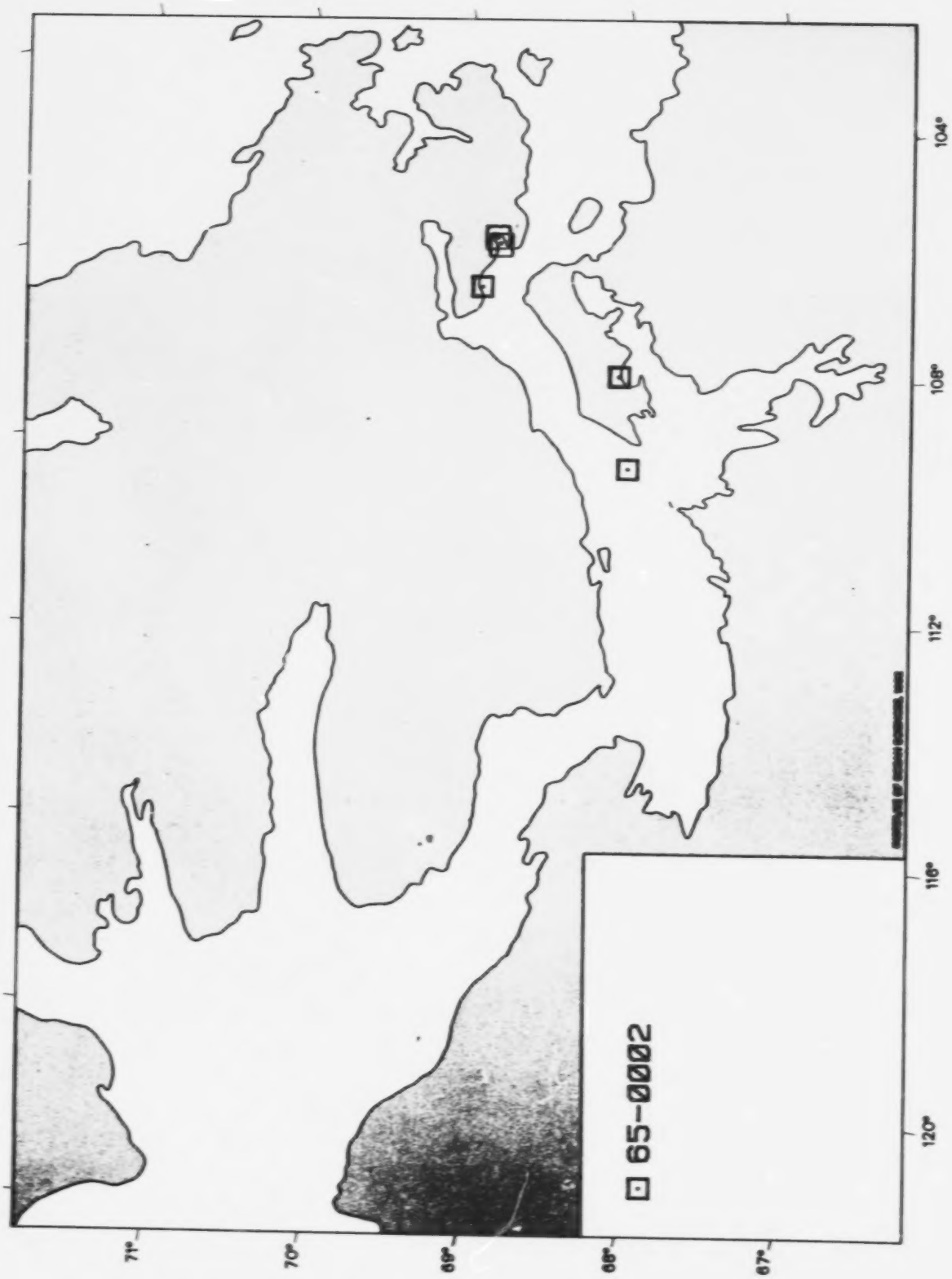
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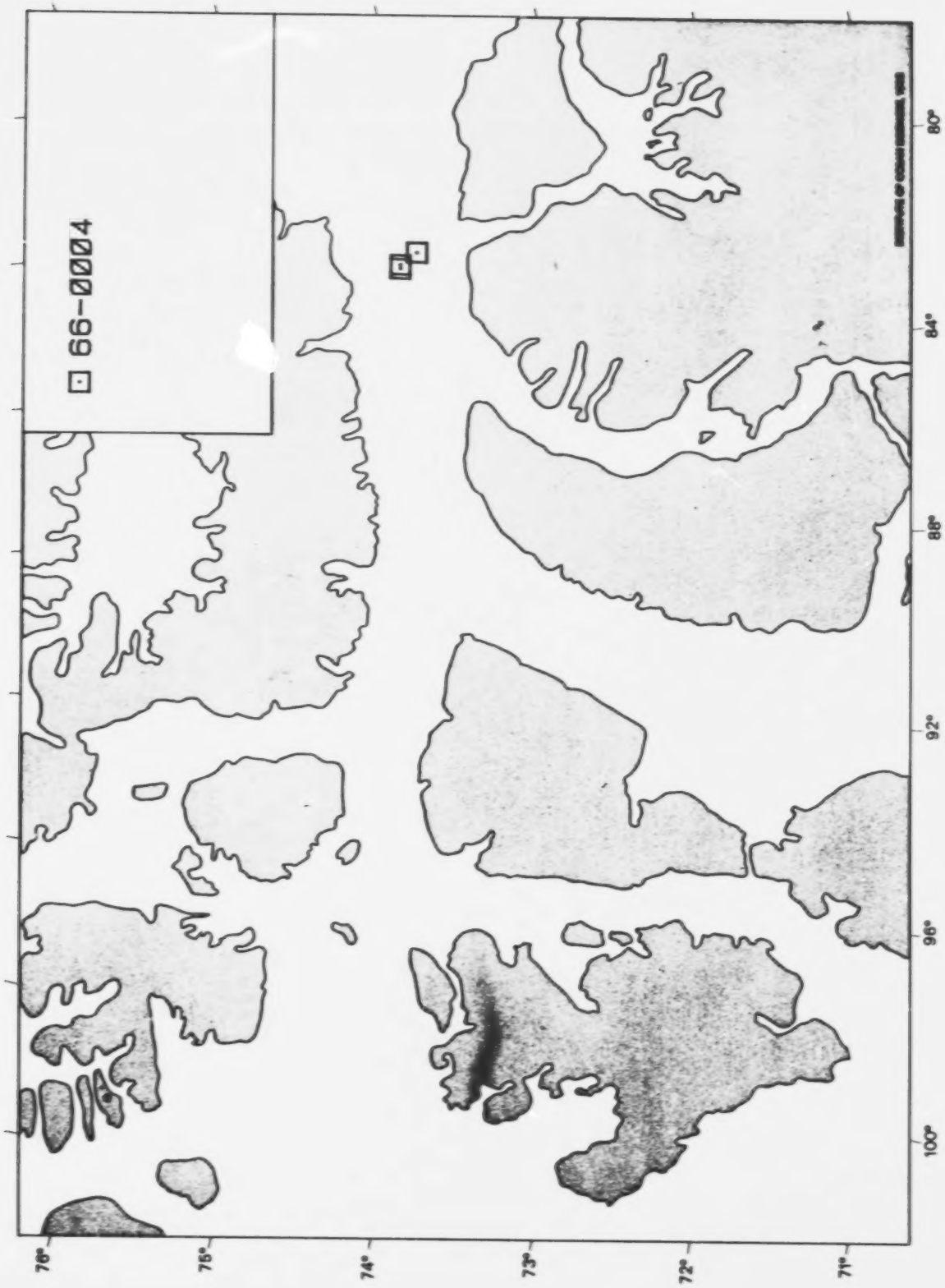
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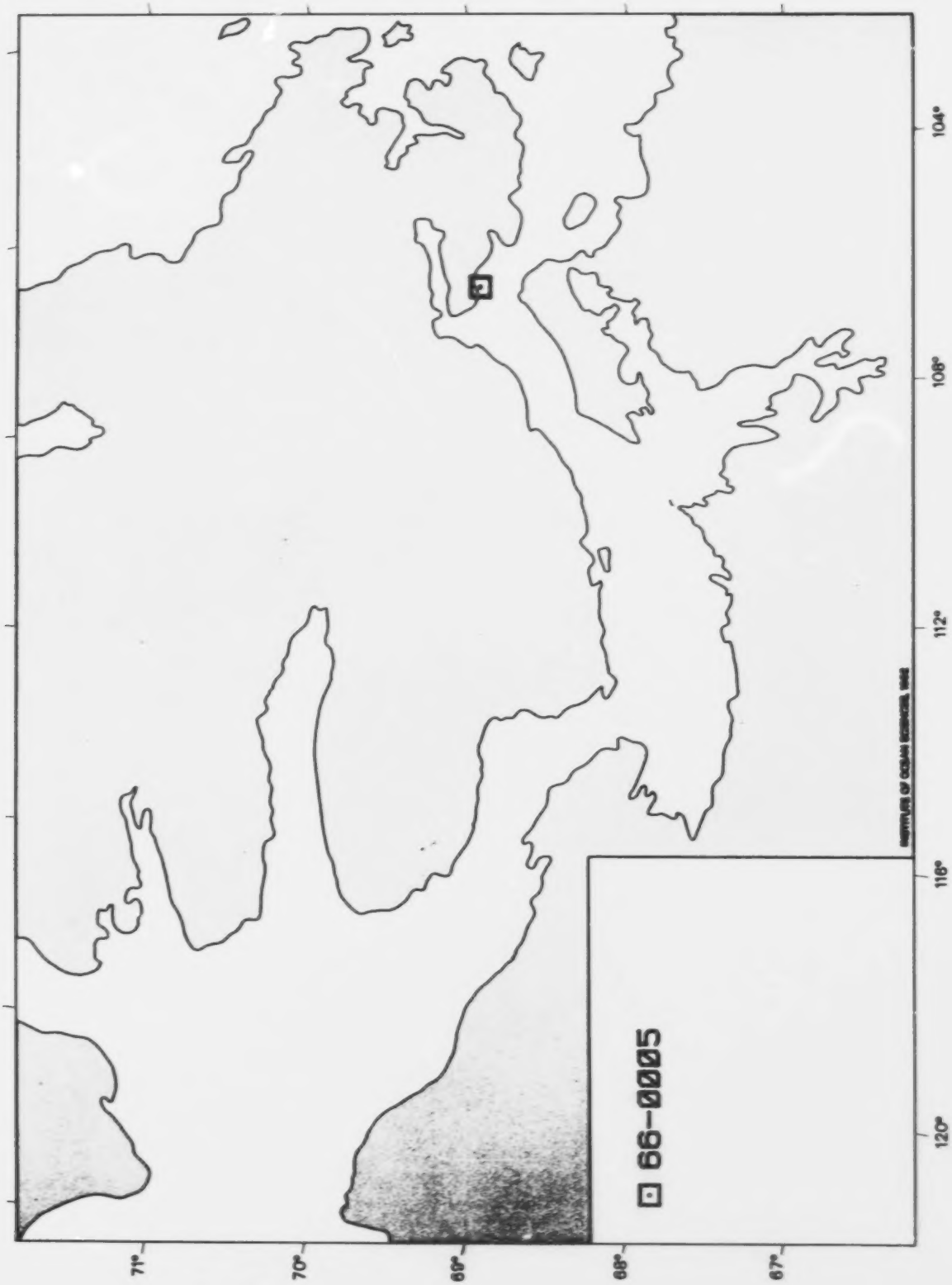
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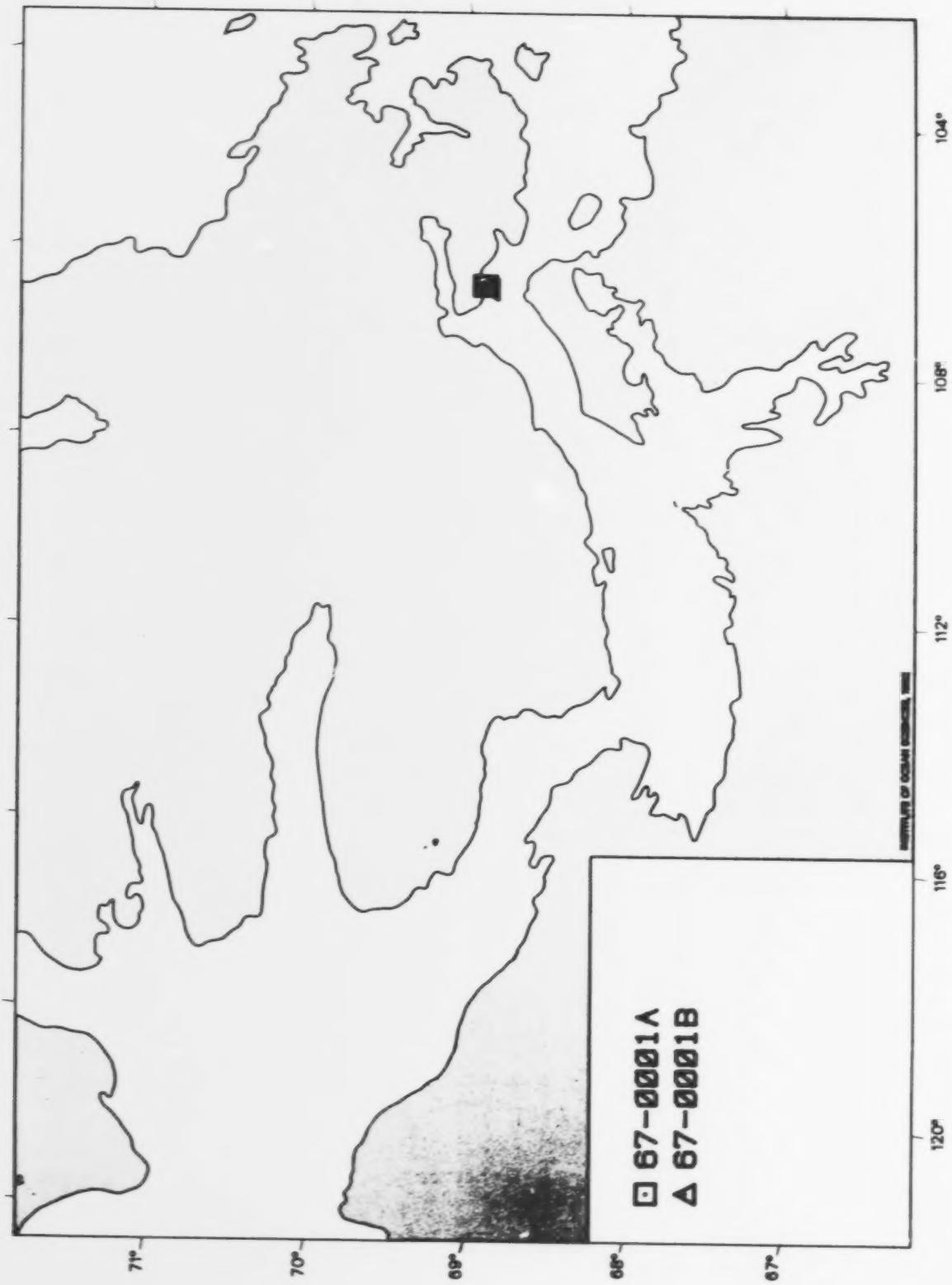
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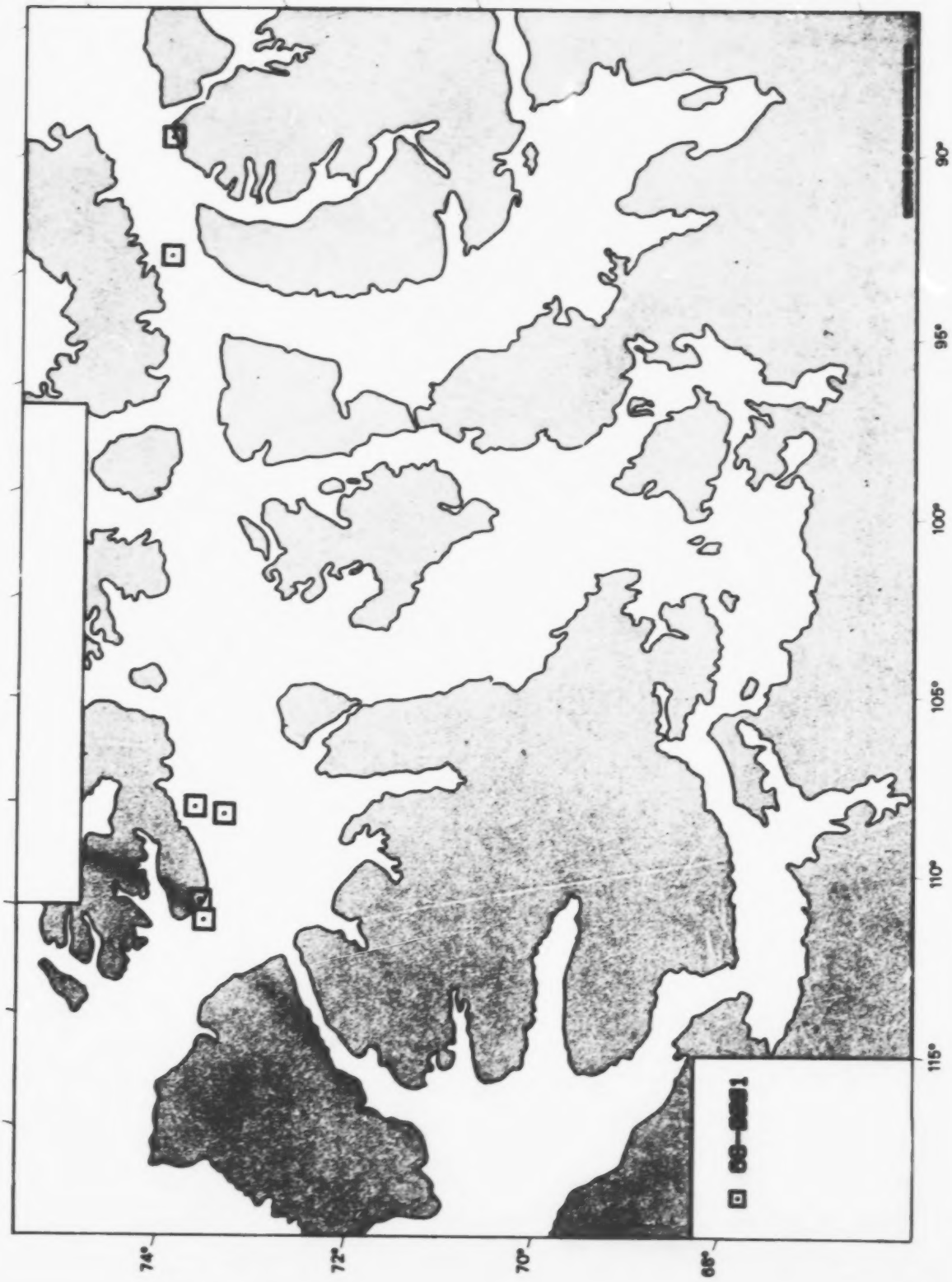
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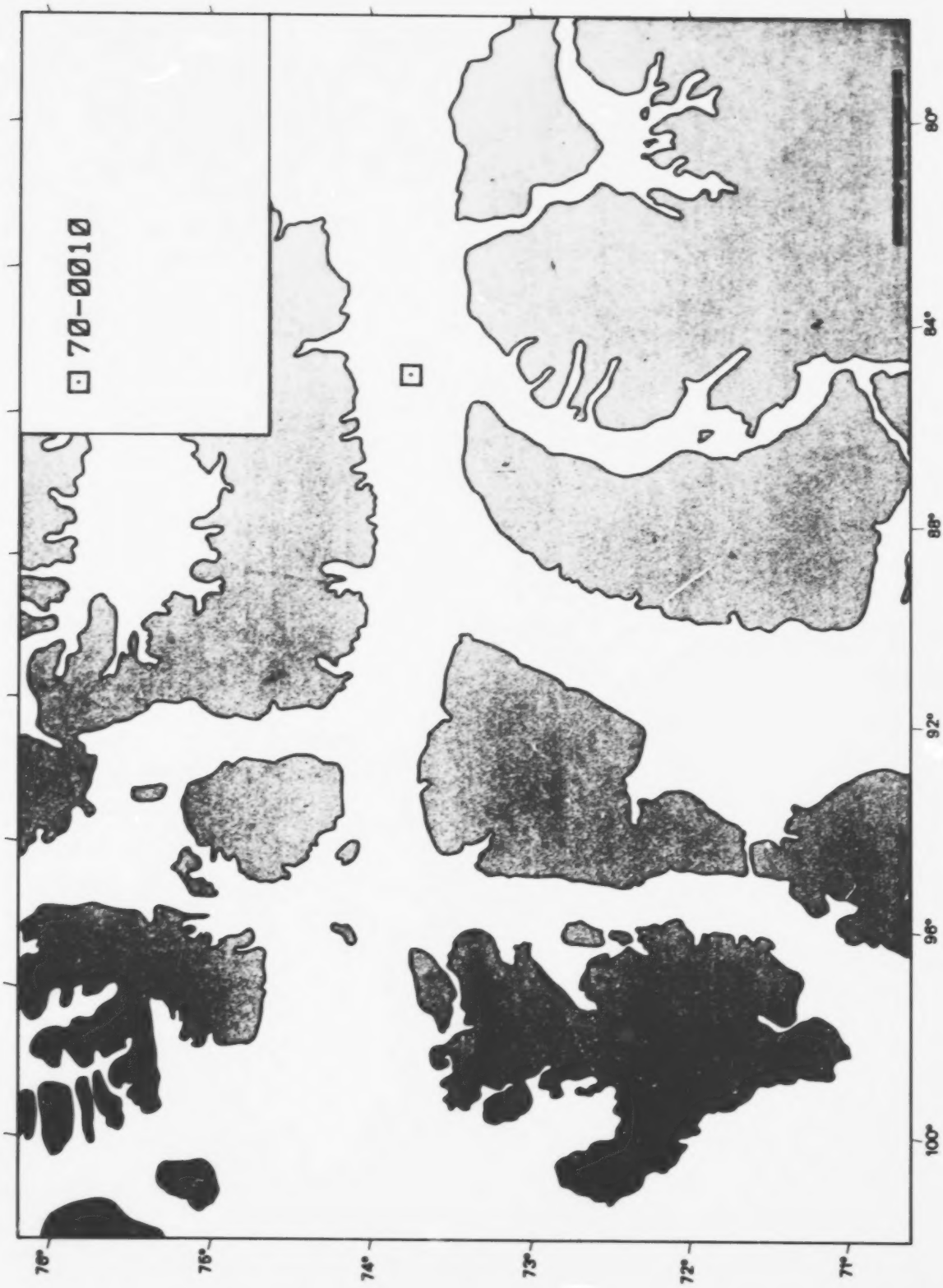
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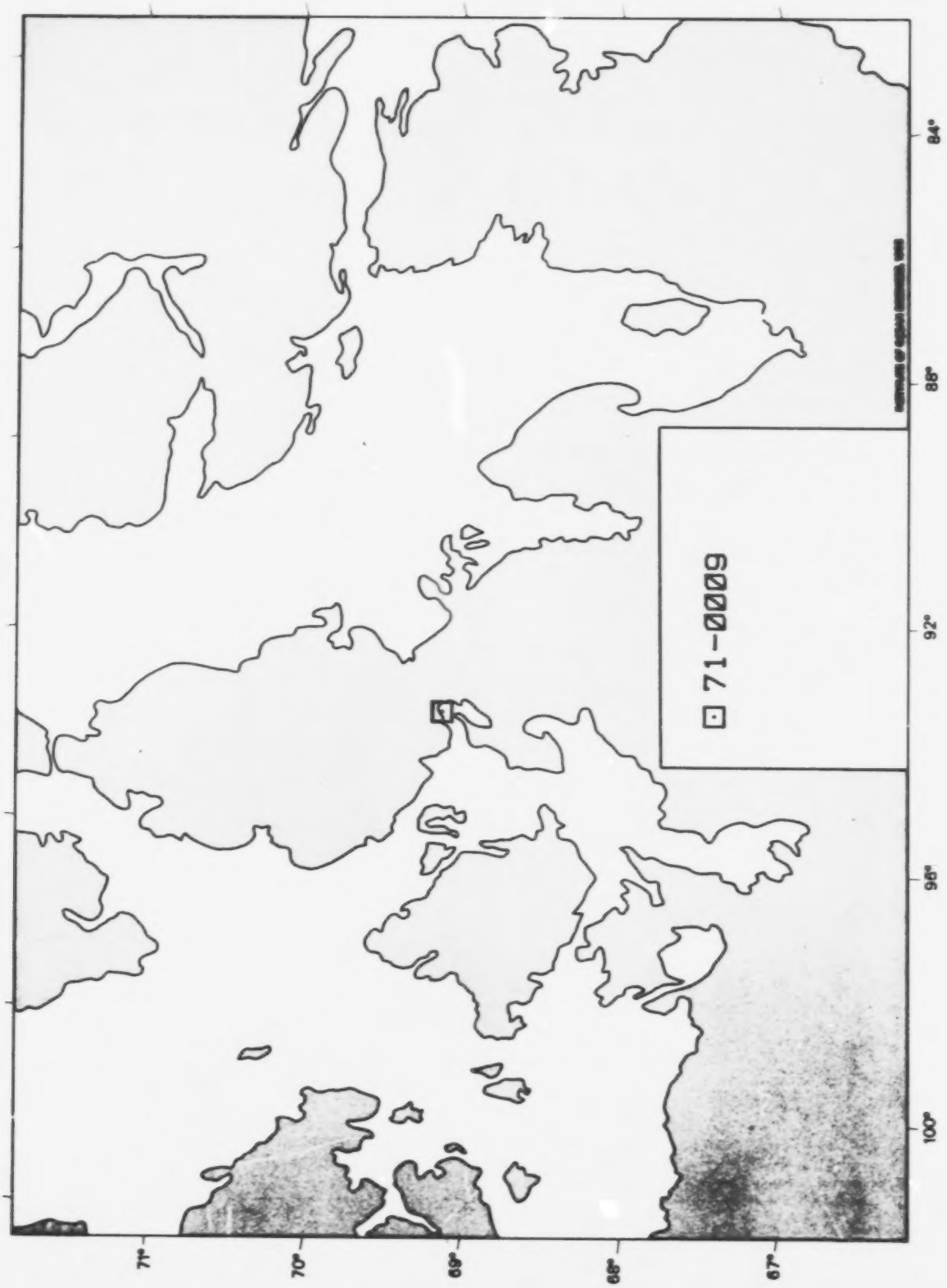
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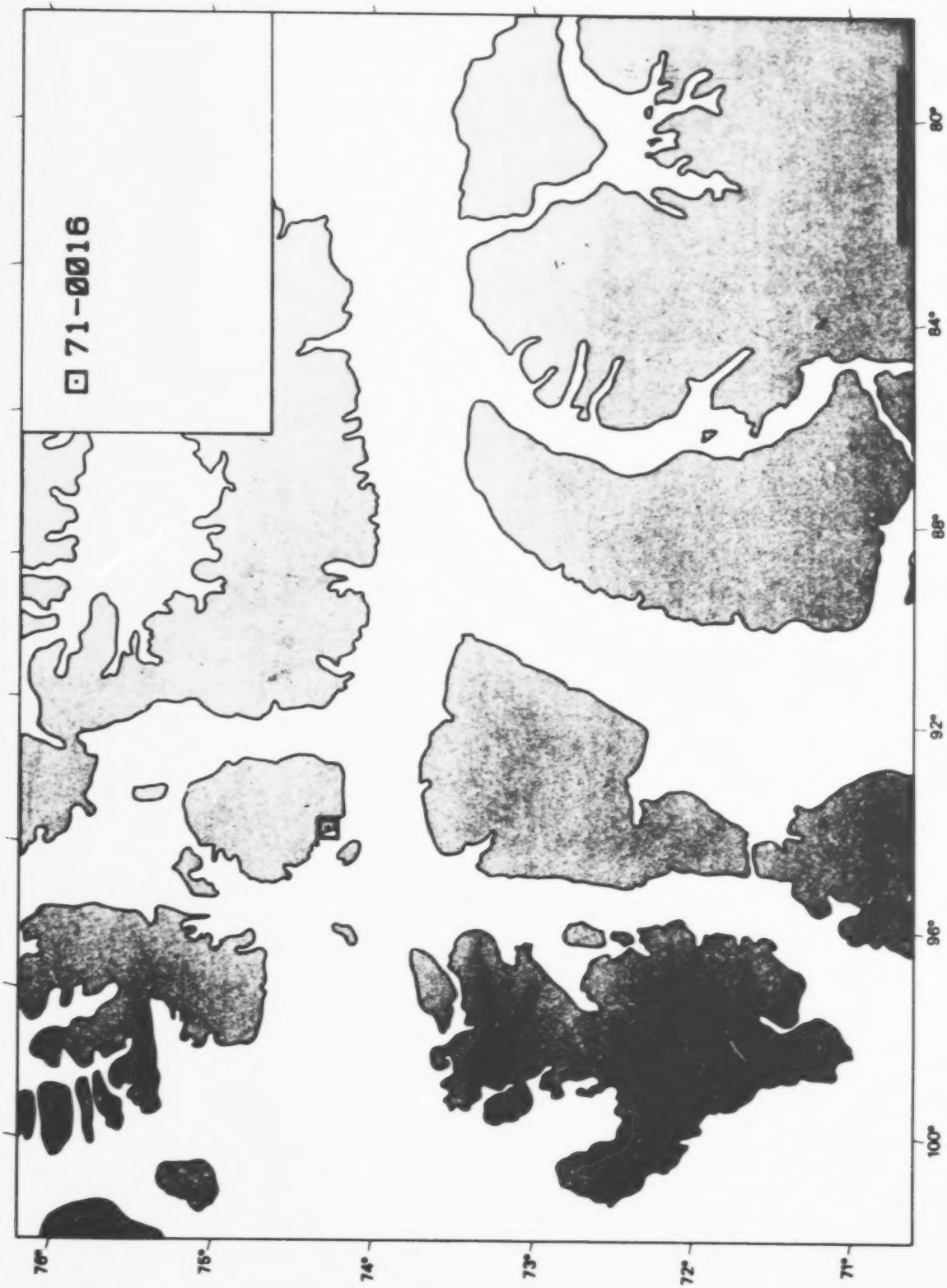
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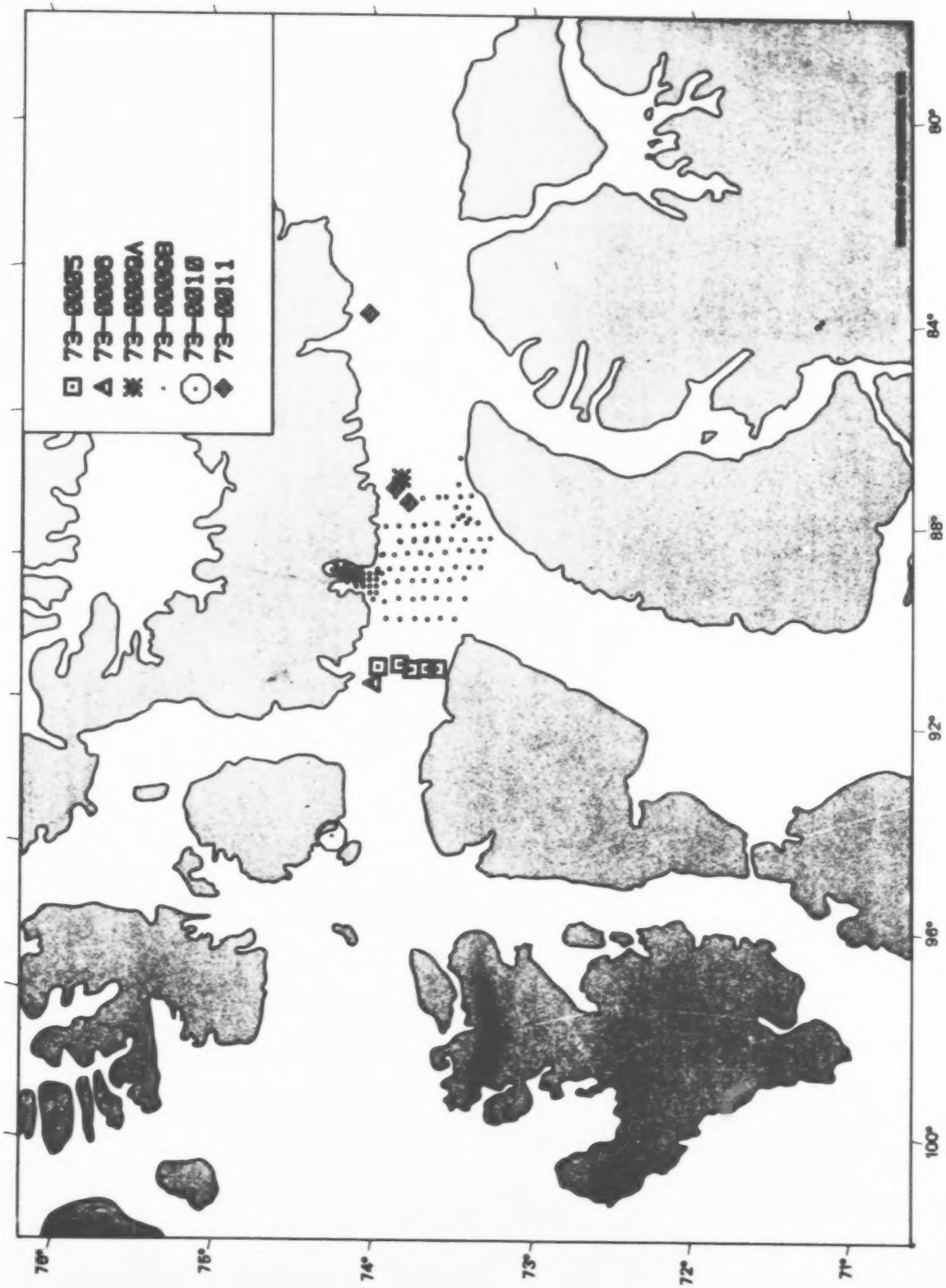
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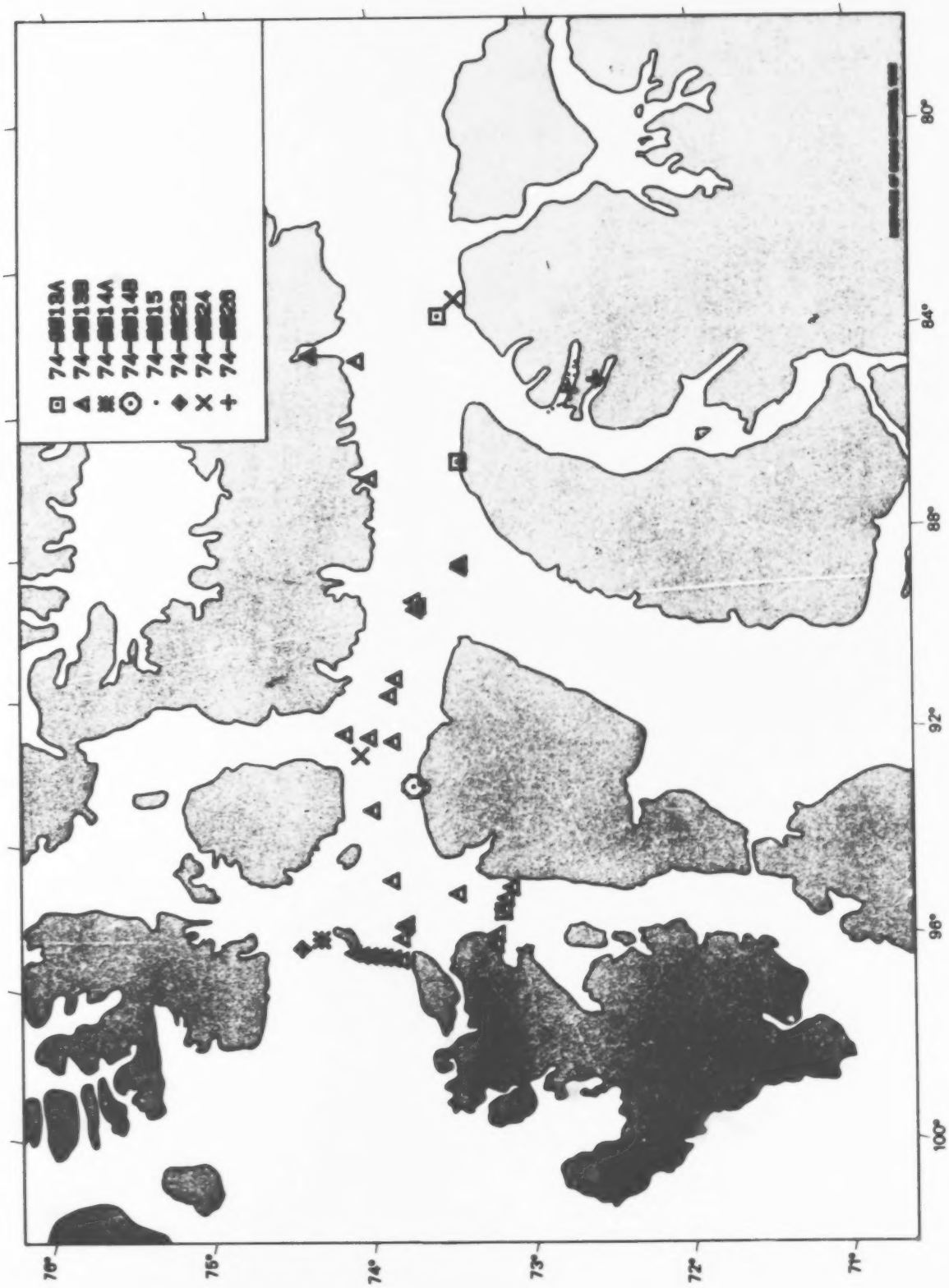
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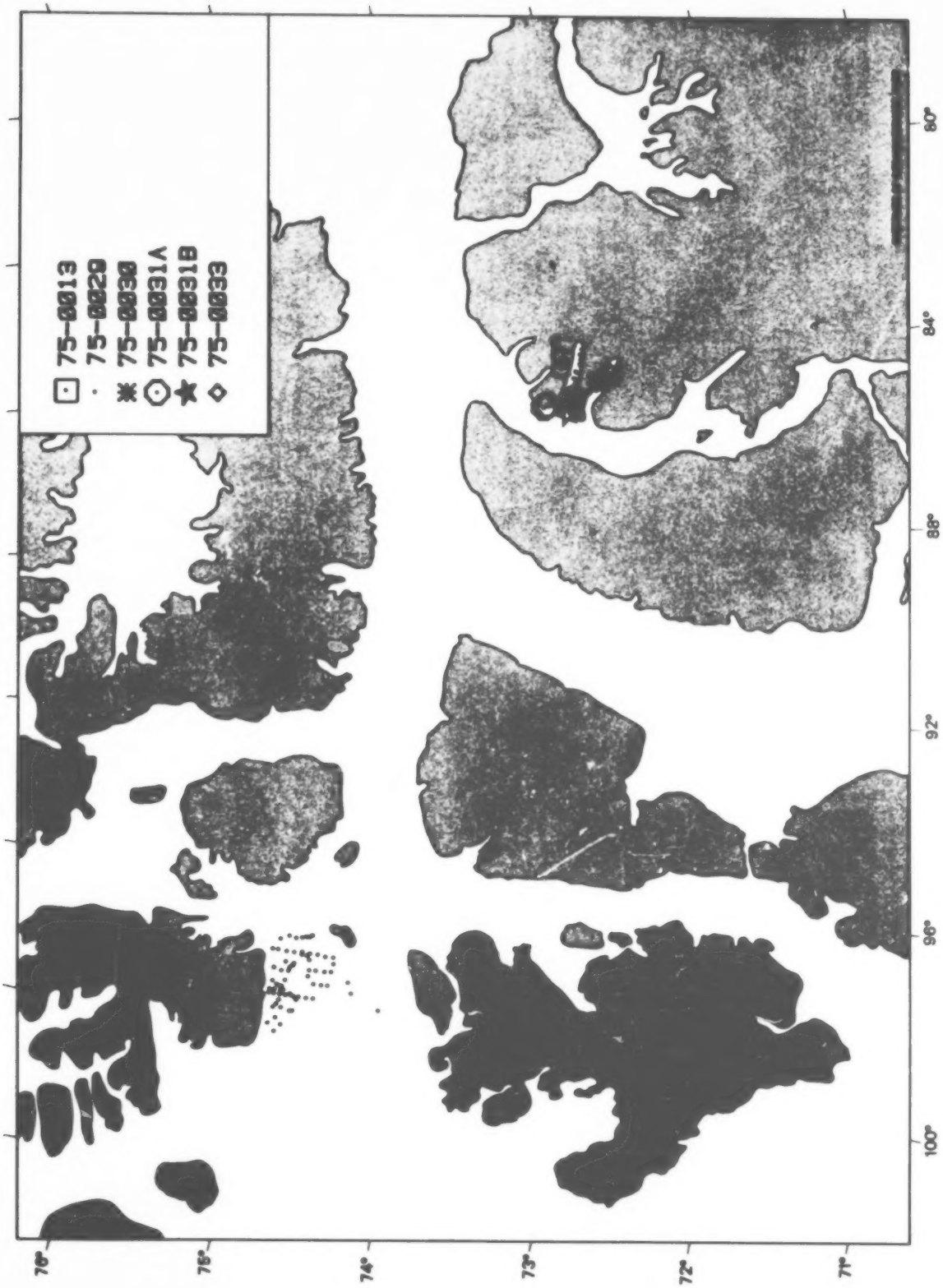
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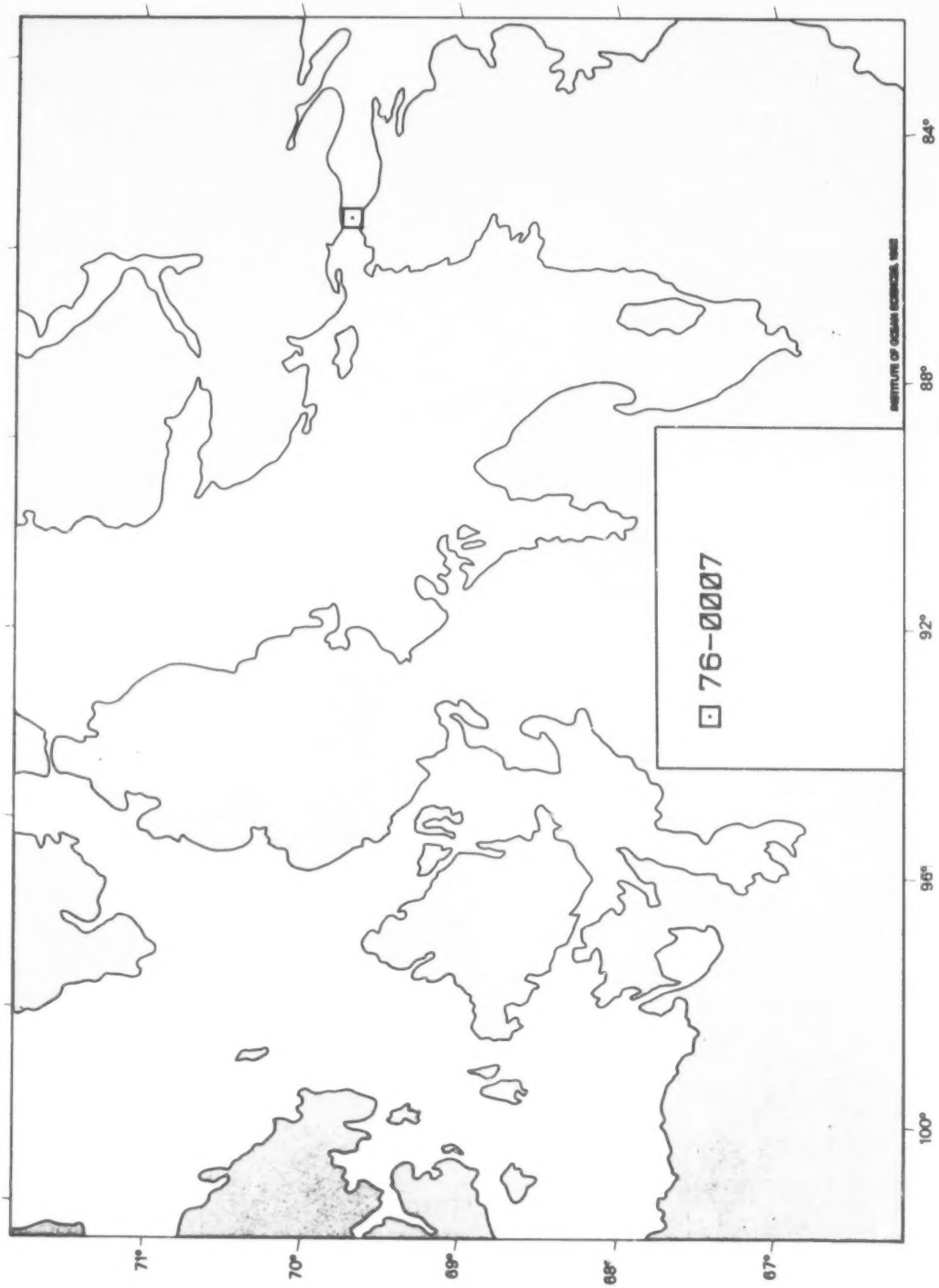
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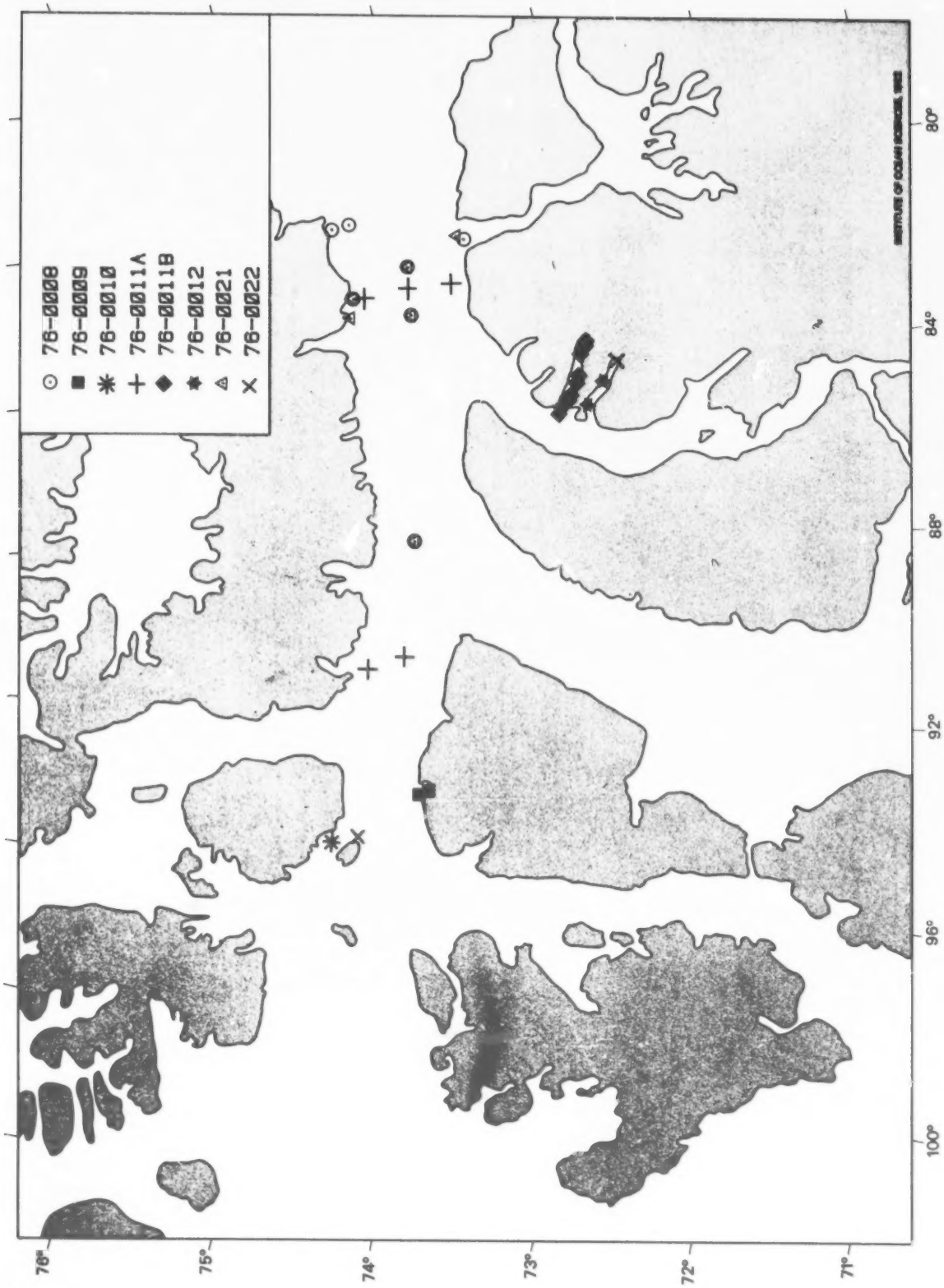
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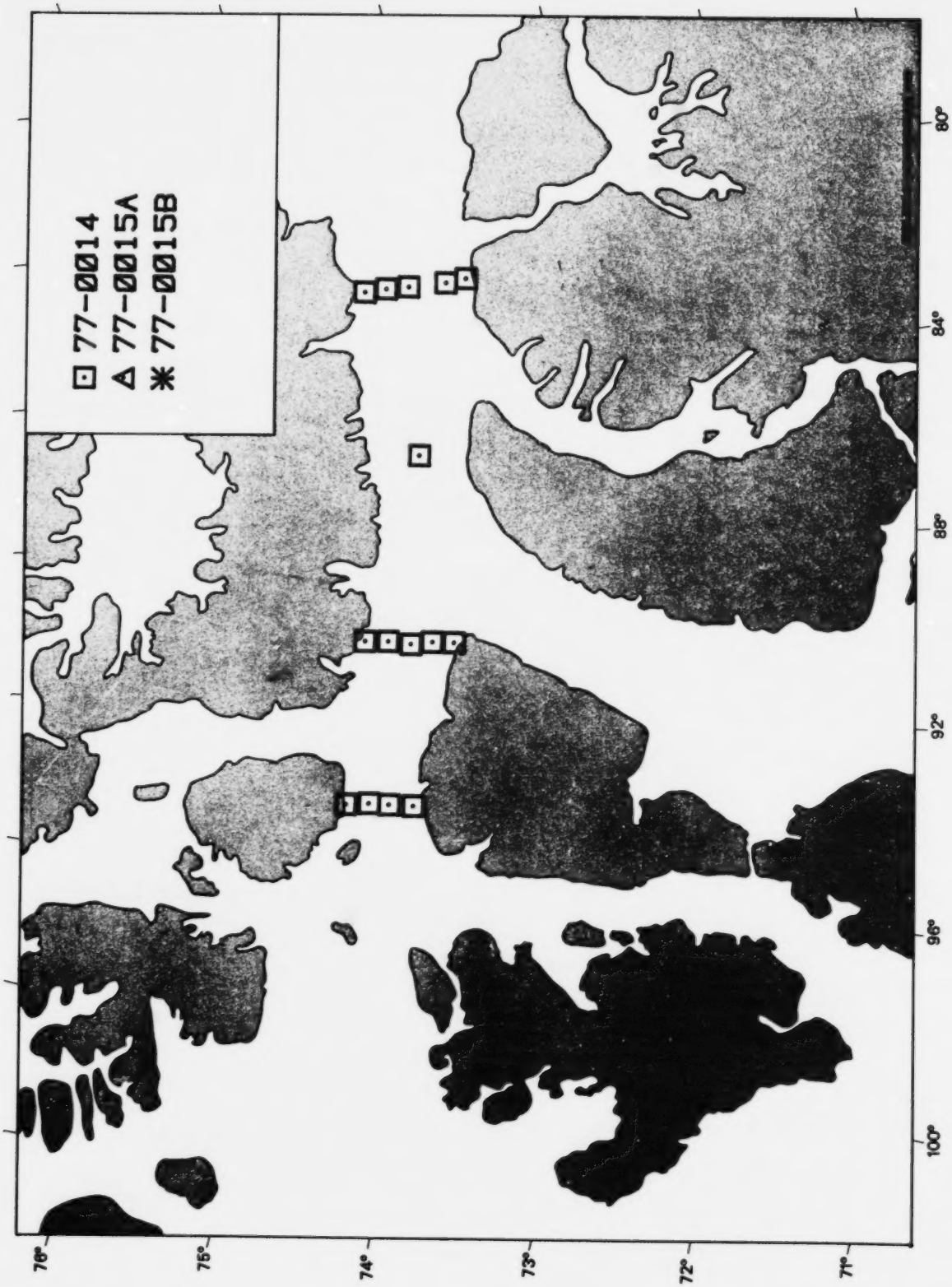
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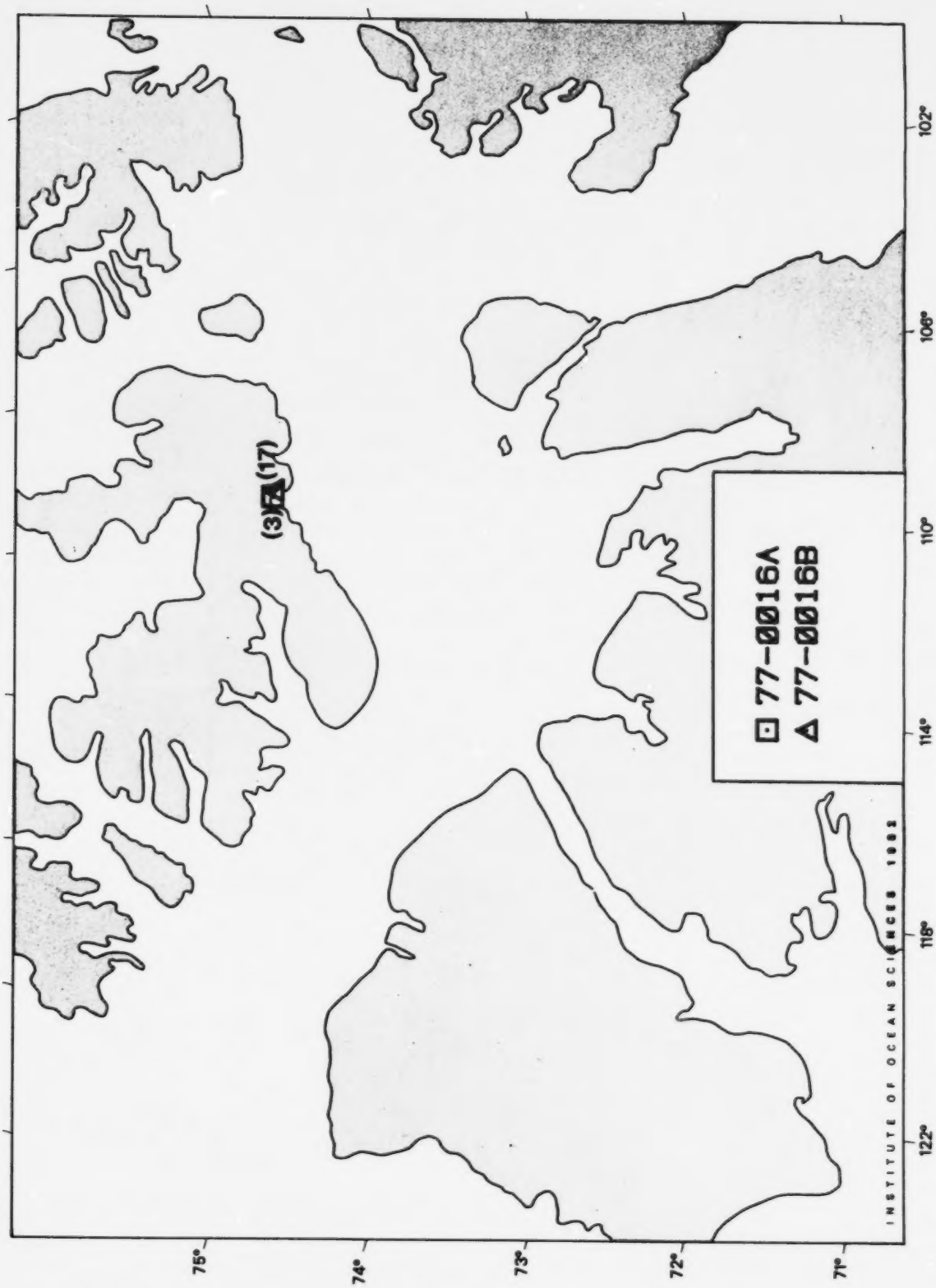
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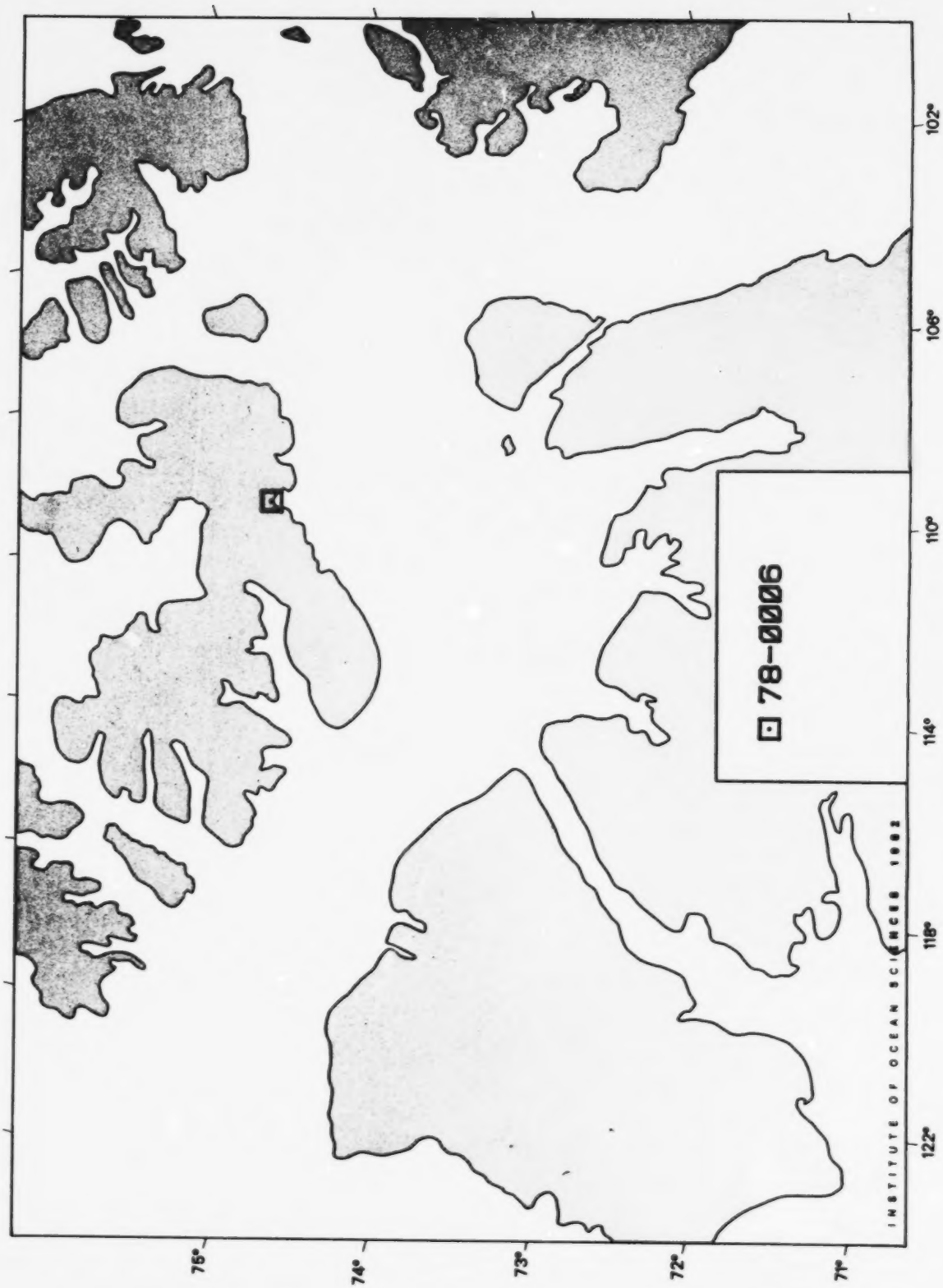
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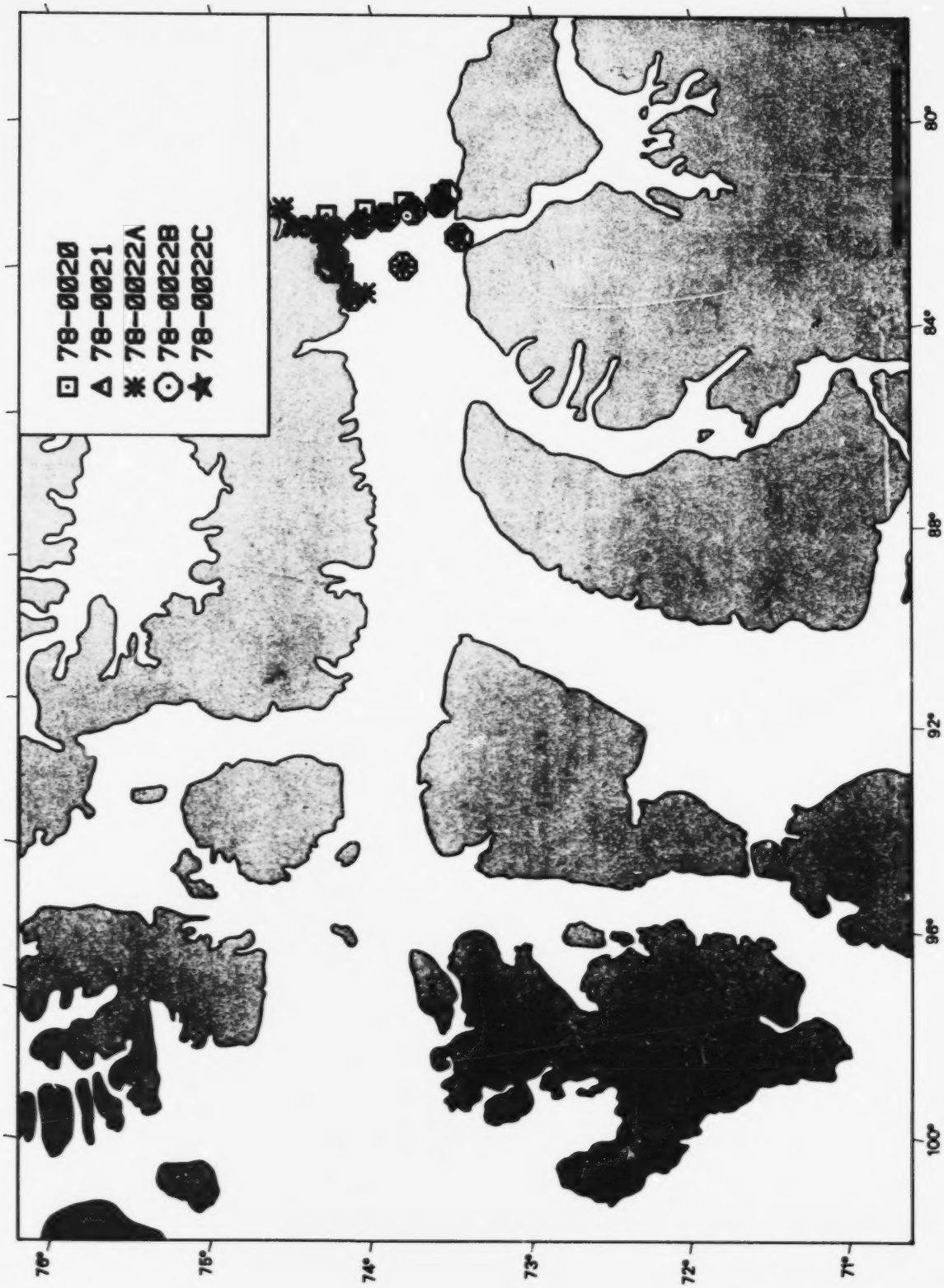
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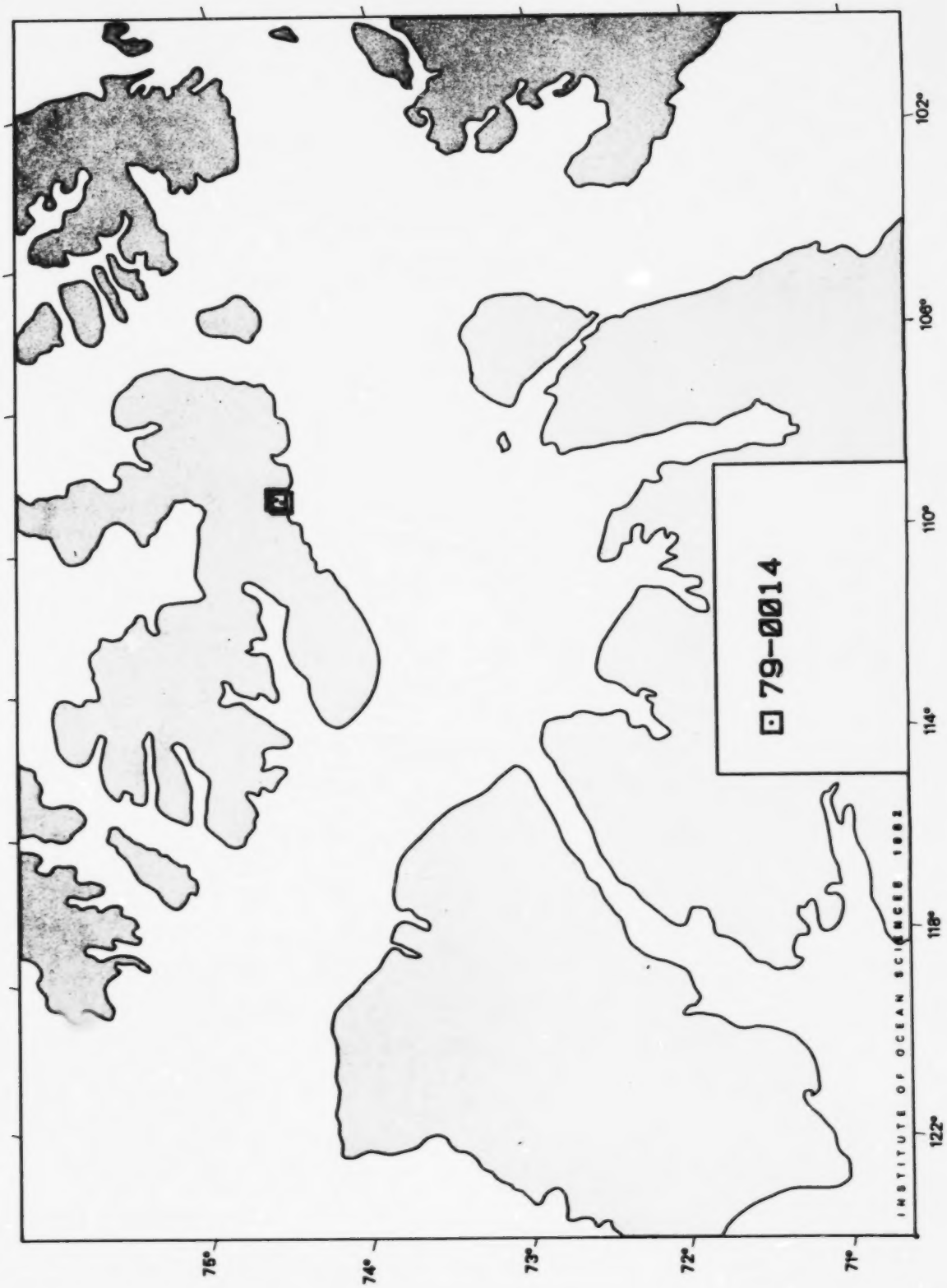
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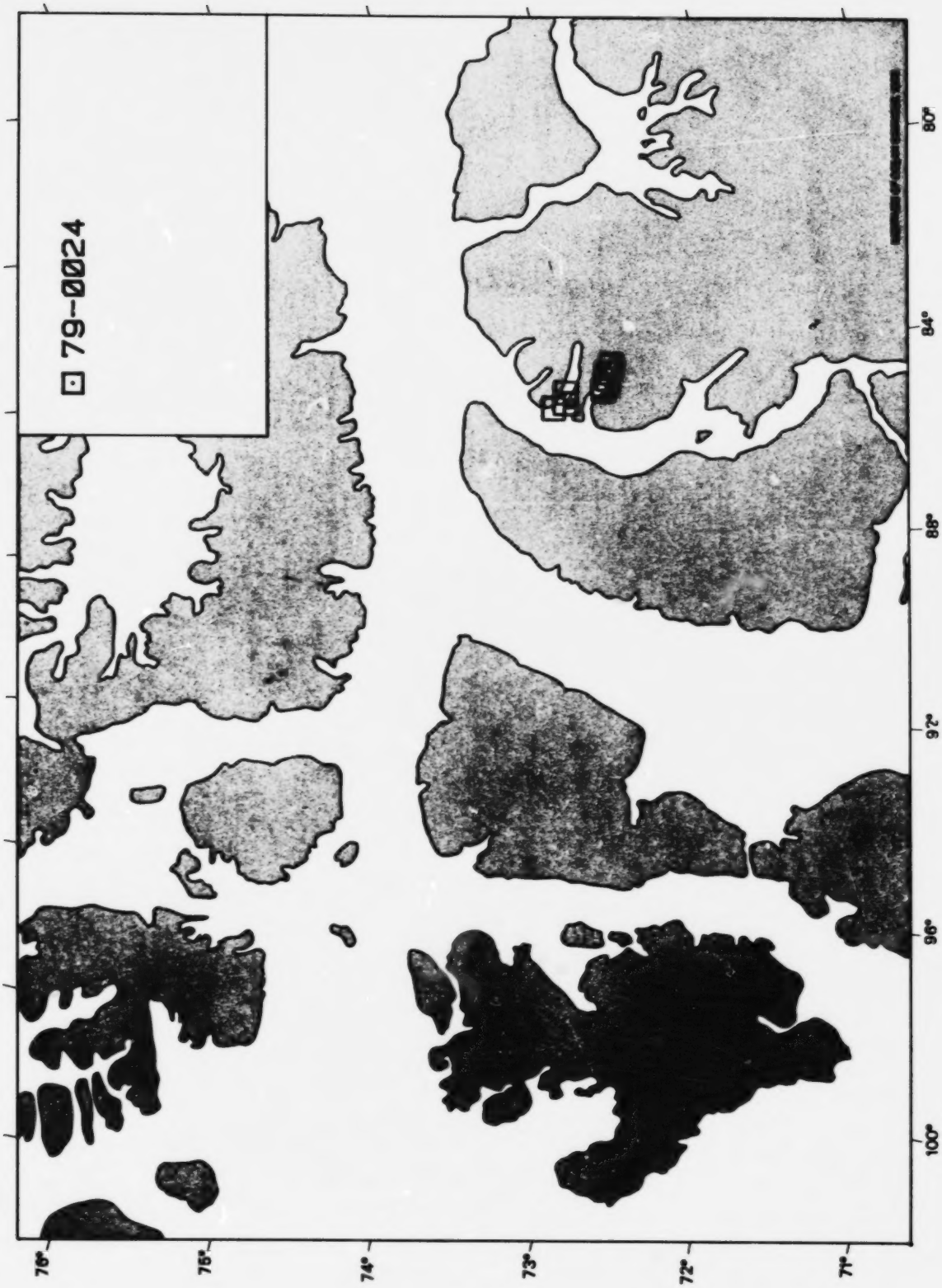
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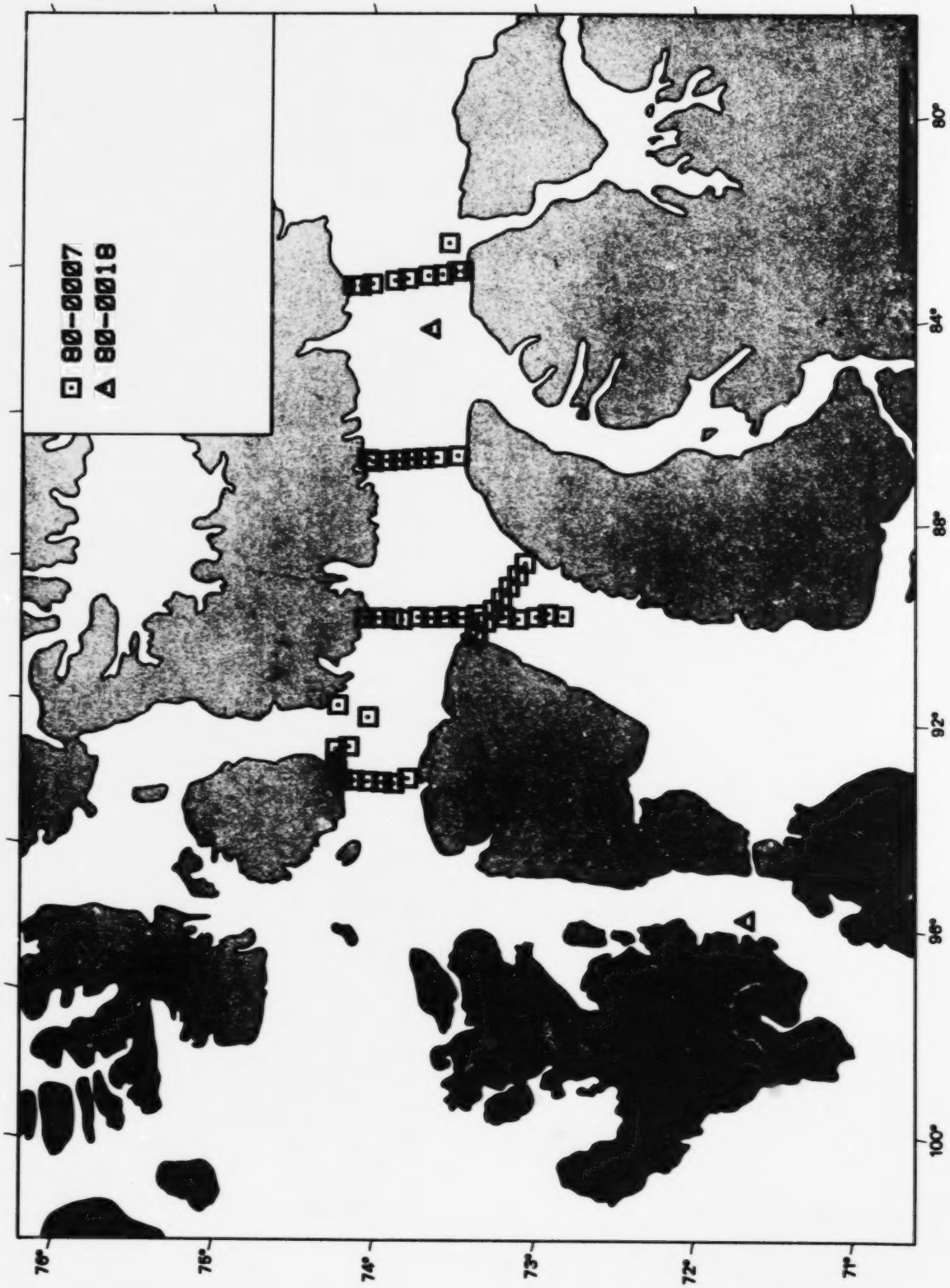
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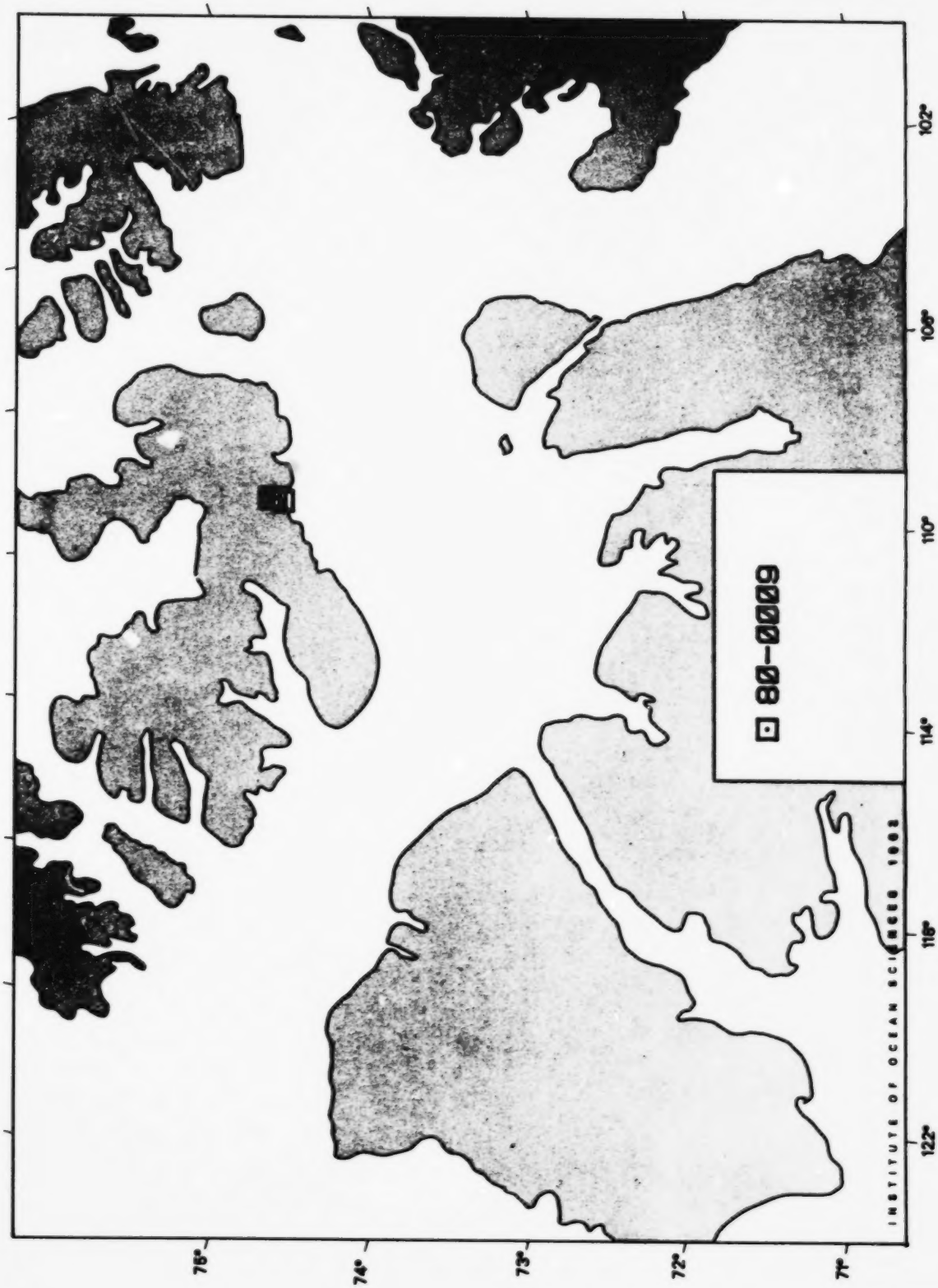
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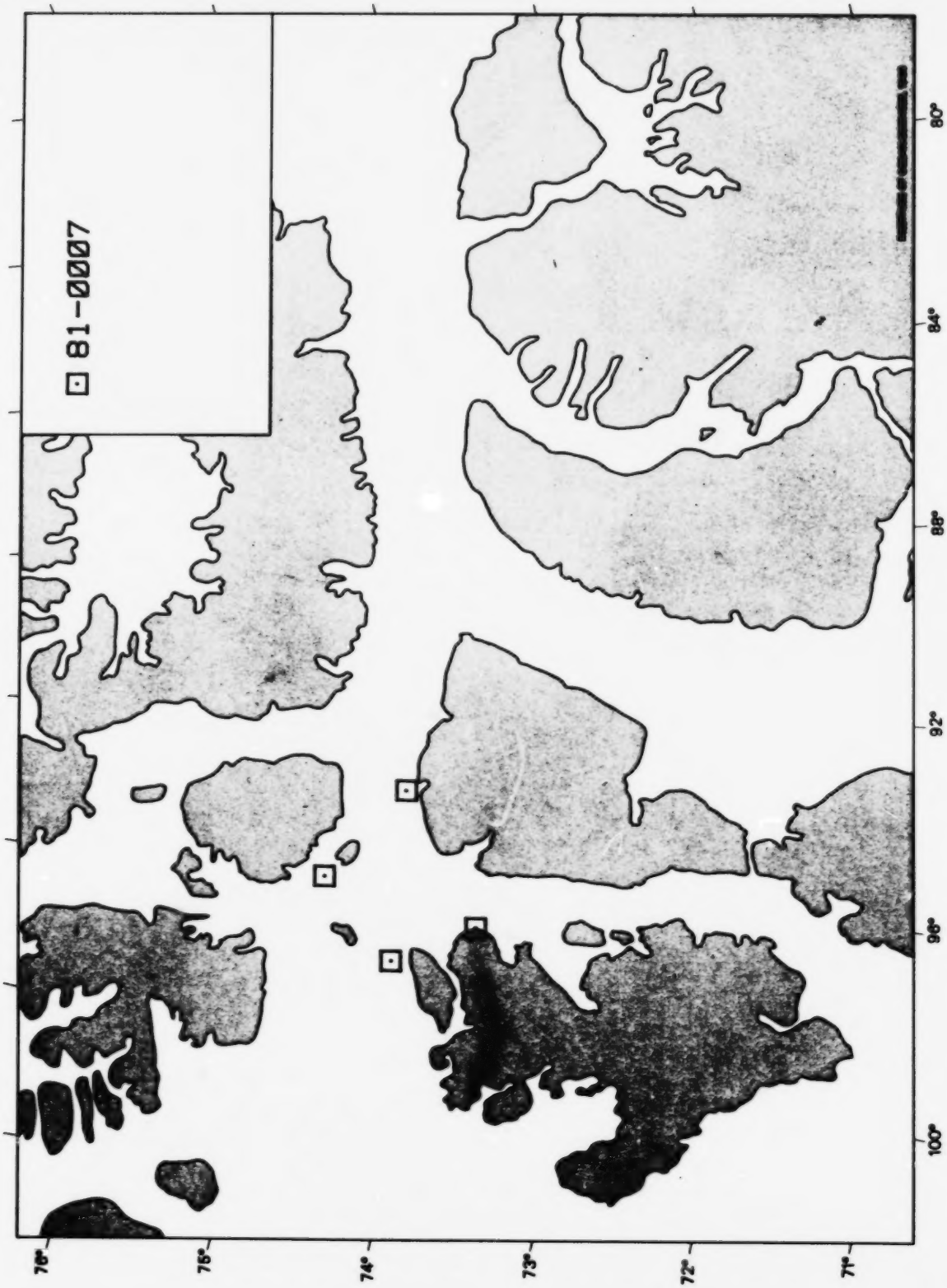
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11. INDICES

11.1 Alphabetical Listing of Data Set Occurrence by Geographic Area

11.2 Index of References by Data Set Number

(1.1) Alphabetical Listing of Data Set Occurrence by Geographic Area

ALLEN BAY	ARCTIC BAY	ASSISTANCE BAY	ASTON BAY	BAFFIN ISLAND (NORTH)	BARROW STRAIT	BRENTFORD BAY	BRIDPORT INLET	CAMBRIDGE BAY	CORNWALLIS ISLAND	CRESWELL BAY	CUNNINGHAM INLET	DEASE STRAIT	FRANKLIN STRAIT
56.0002	76.0012	75.0013	75.0033	80.0018	55.0002	77.0015A	77.0016A	62.0005A	80.0018	62.0005B	76.0016B	65.0002	62.0006
62.0005A					57.0003	77.0015B	77.0016B	62.0009		75.0013	76.0009	66.0003	
					62.0006		78.0006					67.0001A	
					72.0011		78.0016B					67.0001B	
					72.0017		79.0016						
					73.0006		81.0009						
					76.0018B								
					76.0018								
					76.0016A								
					76.0023								
					76.0026								
					76.0022								
					81.0007								

FURY STRAIT	GULF OF BOOTHIA	HADLEY BAY	HECLA STRAIT	LANCASTER SOUND	PRINCE REGENT INLET	RESOLUTE BAY	SPENCE BAY	STRATHCONA SOUND	VISCOUNT MELVILLE SOUND	MAXWELL BAY	MCLINTOCK CHANNEL	MCLURE STRAIT	PEEL SOUND	PRINCE OF WALES STRAIT
76.0007	56.0003	56.0003	76.0007	28.0001	56.0004	71.0016	[illegible]0009	76.0015	52.0003	73.0009B	62.0006	56.0003	76.0018	53.0001
				55.0002		72.0016		76.0026	56.0002	73.0010		68.0001		56.0002
				56.0003		73.0015		76.0029	68.0001					56.0003
				57.0003		76.0010		75.0030	75.0029					57.0003
				65.0008				75.0013A						
				67.0006				75.0013B						
				68.0006				76.0011B						
				68.0001				76.0017						
				75.0015				79.0024						
				73.0003										
				73.0009A										
				73.0009B										
				73.0011										
				76.0013A										
				76.0013B										
				76.0029										
				76.0008										
				76.0011A										
				76.0021										
				77.0019										
				78.0020										
				78.0021										
				78.0022A										
				78.0022B										
				78.0023										
				80.0007										

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